The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 621.—Vol. XVII. LONDON, SATURDAY, JULY 17, 1847. [Price 6d.

IMPORTANT TO RAILWAY COMPANIES, IRONMASTERS, AND RAILWAY CONTRACTORS.

MR. W. GRAHAM will SELL, BY AUCTION (by order of the Sheriff of Monmouthshire), on the EBB VALE COMPANY'S WHARF, NEWPORT, MONMOUTHSHIRE, on Wednesday, the 21st day of July inst., at Twelve o'clock at noon, in one or more lots, and subject to such conditions as shall be then and there produced, about FOUR HUNDRED TONS of SINGLE FLANGE WROUGHT-IRON RAILS—Lengths, 15 feet, 14 feet, and 12 feet, which are now lying upon the said wharf, the property of Mr. Joseph Martin.

Pine Room, near Ragland, July 12, 1847. 1

TO COLLIERY OWNERS, RAILWAY PROPRIETORS, DOCK COMPANIES, ENGINEERS, CONTRACTORS, AND OTHERS.

At the COLLIERY, BISHOP MIDDLEHAM, near the Ferry-hill Railway Station, in the county of Durham.

MESSRS. HARDCASTLE AND ALLASON, of Sunderland, have been honoured with a commission to OFFER FOR SALE, BY PUBLIC AUCTION, without reserve, on Wednesday and Thursday, July 21 and 22, 1847, the whole of the valuable NEW COLLIERY PLANT, WORKING STOCK, and MATERIALS, comprising a first-rate HIGH-PRESSURE PUMPING-ENGINE (by Skinner and Diggles), of 7 feet stroke, with 43-inch cylinder, working easily and economically at 130-horse power, and having five boilers, 25 feet by 6, and four sets of pumps attached; capital HIGH-PRESSURE WINDING-ENGINE (by Fossick and Hackworth), of 5-feet stroke, with 24-inch cylinder, working at 35 horse power, having two boilers, 25 feet by 6, and rope rollers, &c., attached, all complete; gin, headstead, and four screens; 70 fathoms of main brattice, with conductors, cages, flat-ropes, &c.; NEW NUT COAL APPARATUS, spears and spear plates, shear legs and pulley frames, oak main crab, tail crab, shaft crab, and several crab-ropes; BRIDGE RAILS, many tons of METAL TUBBING, PUMPS and PIPES, of various sizes; tramway plates, 2750 yards of RAILWAY, 35 lbs. to the yard, with chairs, crossings, and sleepers, complete; a number of well-built COAL WAGGONS, waggon-wheels, tubs of various sizes, punching machine, hand lathe, winch, smiths' bellows, anvils, vices, and tools, carpenters' benches, &c.; patterns, frames, shovels, pit-ropes, deals, battens, new and old IRON, new and old pit and crab ROPE, and a large quantity of other MISCELLANEOUS COLLIERY STOCK, all very nearly new, and of the best quality.

Catalogues may be had at the Sunderland Sale Offices, 16, Bridge-street. 2

Sale to commence each morning at Ten o'clock.

The engines will be sold at Three o'clock on Wednesday, the first day of sale. The railway and waggons will be sold at Three o'clock on Thursday, the second day of sale.

[From *Bradshaw*, for July.]

Ferry-hill Station, on the York and Newcastle Railway.—Up Trains, 6.45, 8.50, 11.14 A.M.; 2.14, 4.24, 7.14 P.M. Down Trains, 7.50, 8.50, 11.30 A.M.; 2.9, 4.45, 7.5, 7.50 P.M.

Sedgefield Station, on the Clarence Railway.—Up Trains, 9.15, 11.45 A.M.; 4.40, 6.30 P.M. Down Trains, 6.25, 11.0 A.M.; 4.5, 5.45 P.M.

July 6, 1847.

SOUTH SYDENHAM, DEVON—VALUABLE MINE AND MATERIALS FOR SALE.

MR. RENDELL has the honour to announce, that he has received instructions from the present adventurers to OFFER FOR SALE, BY PUBLIC AUCTION, on Monday, the 26th day of July inst., by Two o'clock in the afternoon precisely, at the Account-house, on the mine, in one lot, all that SETT of the valuable MINE, called, or commonly known, by the name of WHEAL CONCORD, situate in the parish of South Sydenham, in the county of Devon, for the remainder of a term of 21 years—18½ of which are unexpired; together with the following MINING MATERIALS, lately erected on the said mine—viz.: A STEAM-ENGINE, of 30 inches cylinder, erected on the most approved principle, with the pumps, rods, ladders, capstan and shears, &c., necessary for carrying on the operation in the engine-shaft.

Also, 3 horse-whims, pulleys and poppet-heads, 2 whim-ropes, 4 kibbles and chains, water-wheel and crusher, with cranks, about 3½ tons of new iron, a quantity of old iron, smiths' bellows, anvil, vice, screw stock and plates, beam and scales, weights, a quantity of smiths' and miners' tools, a lot of old and new timber, wheel-barrows, grinding-stone and frame, dressing tools, &c.

The above mine and materials are offered to the public in consequence of pecuniary difficulties; and, if it should be worked effectually, it is expected that large dividends will be realised by an enterprising company—upwards of £10,000 worth of lead ore having been returned from the mine at different times.

This sett also adjoins Wheal Grace on the west, where an engine has lately been erected, for the purpose of working Wheal Concord lode; and, from its present promising appearance, it bids fair to be a very valuable mine.

The reports, and any other information respecting the present workings, may be obtained of Capt. Opie, the resident agent on the mine; and any further particulars of Messrs. Little and Woolcombe, solicitors, Devonport; or of Mr. Snell, solicitor, Callington.

Callington, July 10, 1847.

FOR THE BENEFIT OF THE UNDERWRITERS, AND FOR THE PAYMENT OF SALVAGE CHARGES.

MR. W. D. MATHEWS, AUCTIONEER, begs to inform the public, that, on Monday, Tuesday, and Thursday, the 26th, 27th, and 29th days of July inst., at ST. IVES, PENZANCE, and SCILLY, PUBLIC SALES, BY AUCTION, will take place, for SELLING, without reserve, nearly FIVE HUNDRED PIECES of very

SUPERIOR SPANISH MAHOGANY,

Containing about 40,000 feet, being part of the cargo of the French brig *Jules de Blosseville*, wrecked near the Land's End, in December last, on a voyage from St. Domingo, direct for Havre, when all hands, unfortunately, perished.

This sale is strongly recommended to the notice of the public. Many of the logs will produce splendid curls—others the finest description of strong shaded wood.

The pieces vary in contents from 10 to 300 feet each, and come generally under the denomination of "Veneer Logs."

The sale at ST. IVES will take place on MONDAY, the 26th, at Ten o'clock in the forenoon, for SELLING about TWO HUNDRED and EIGHTY PIECES.

At PENZANCE, on the following day, at noon, for SELLING about EIGHTY PIECES:

And the last, at ST. MARY'S, SCILLY, on THURSDAY, the 29th of July, for SELLING the remainder, consisting of about ONE HUNDRED and THIRTY PIECES.

The whole will be put up in such lots as may suit the convenience of the purchasers.

For viewing the same, application may be made to the several "Receivers of Droits," in whose custody the goods are at Penzance, St. Ives, and Scilly; and for further particulars, to the auctioneer; or to RICHARD PEARCE,

Dated Penzance, July 1, 1847. French Consular Agent, Penzance.

N.B.—The *Cornwall* steamer will leave Bristol on Friday, the 23d inst., at One o'clock in the afternoon, and arrive at St. Ives about Six o'clock the following morning. The *Sir Francis Drake* steamer leaves Plymouth every Saturday at noon. The *Lioness* packet leaves Penzance, for Scilly, at Nine o'clock every Wednesday morning; and Scilly, for Penzance, the same hour every Friday.

PATRICROFT—IMPORTANT COLLIERY FOR PEREMPTORY SALE.

MR. T. M. FISHER is directed peremptorily to SELL, BY AUCTION, on Tuesday, the 3d day of August, 1847 (unless previously disposed of by private contract, of which due notice will be given), at the Law Society's Rooms, Norfolk-street, Manchester, punctually at Four o'clock in the afternoon, all that well-known and well-established COLLIERY, situate at PATRICROFT, near Manchester, now worked by the owner (who is withdrawing from the trade), together with the STEAM-ENGINES, STEAM-BOILERS, HEADSTOCKS, WINDING GEAR, BUILDINGS, and other fixed matters thereto belonging. The purchaser may also take the loose stock, consisting of boats, carts, horses, &c., at a valuation, but will not be held bound to do so. This colliery, established on a first-rate principle, has only been at work about six years, and is partly freehold, and partly held in lease, under Sir T. J. De Trafford and the trustees of the late Duke of Bridgewater. The machinery is of the best modern make, and in excellent working condition—the situation one of the most convenient in the county for a ready sale of all the produce, having a roomy basin communicating with the canal, and a short branch railroad partly made, which will enable the coals to be delivered in Manchester at 6d. per ton. In addition, it is ascertained that a rich bed of ironstone, 29 in. thick, exists upon the property, which, from analysis, is found to contain from 32 to 37 per cent. of metallic iron. This may be leased on very reasonable terms; and as the coals are most suitable for smelting, and limestone is to be had on the estate, can be profitably worked, at little extra expense.

Orders to view, and other particulars, will be ready 21 days before the sale, and may be had from the auctioneer, 21, Princes-street, Manchester; W. Heaton, solicitor, Rochdale; Woodcock, Parr, and Scott, solicitors, Wigan; W. Benson, solicitor, King-street, Manchester; T. Livesey, Chamber Hall, near Oldham; or J. Hodgkinson, on the premises.

FOR SALE, AT TRETOIL MINE, LANIVET, NEAR BODMIN, CORNWALL—1 95-inch cylinder STEAM PUMPING ENGINE, with two boilers, about 20 tons, complete—one other boiler, about 13 tons; 1 21-inch cylinder STEAM PUMPING ENGINE; 44 17-inch PUMPS; 2 17-inch plunger-poles, 2 18-inch cases for ditto, with stuffing-boxes and windbores; H and door-pieces, several pumps of 11, 11½, 9½, 8, and 6 inches, with windbores; 13-inch plunger-pole and case, 6-inch ditto, H-piece and door-piece, &c.; 8-inch plunger-pole, balance-bobs, capstans and shears; 130 fathoms 12-inch capstan-rope, whim-ropes, main-rods, strapping-plates, staples and glands, pulleys, railroad iron, tram waggons, and numerous articles, well worthy of attention—much of the pitwork and materials being nearly new, and in good condition.

Apply to Mr. Henry Thomas, 8, George-yard, Lombard-street, London; Mr. George Geach, Bodmin; or to Capt. Henry Williams, at the sales. 6

Dated July 15, 1847.

FOR SALE, AT TRENOW CONSOLS MINE, NEAR MARAZION, in the county of Cornwall, an 85-inch cylinder STEAM PUMPING-ENGINE, 10-feet stroke, equal beam, with three boilers, of 39½ tons; 6 fathoms of 17-inch, 35 fathoms of 16-inch, 33 fathoms of 12-inch, and 10 fathoms of 9-inch PUMPS; 4 15-inch, 1 8-inch, and 1 9-inch windbores; 3 15-inch and 1 13-inch working-barrels; 4 15-inch clack seat-pieces; 1 15-inch piece, 14-inch H and top door-pieces; 1 12½-inch, 1 14-inch, and 2 15-inch plunger-poles, with suitable stuffing-boxes and glands; 2 capstans and 1 shears; 1 12-inch and 1 9-inch capstan rope, each about 100 fathoms long; 1 balance and 1 angle-bob; 80 fathoms of from 7 to 13-inch main-rods; strapping plates, bolts, and burrs; flange bolts, staples, and glands; horse-whims, whim chain, and kibbles, with numerous articles, well worthy the attention of mine adventurers and agents.

Application to be made to the agents at the mine; or to Mr. Henry Thomas, Mining Offices, 8, George-yard, Lombard-street, London.—Dated July 15, 1847. 7

MINING ADVENTURERS' SUBSCRIPTION ROOM, ORIGINAL REGISTRY OFFICE FOR THE SALE AND PURCHASE OF MINING SHARES.

CROSSMAN, SOMMERS, AND CO., AGENTS,

28, *THREADNEEDLE-STREET LONDON.*

SHARES FOR DISPOSAL.

Bedford United Mines	Pennant
Coombe Mine	Wheal Rose
Devon and Courtenay Consols	Wheal Rose Consols
New East Crowndale	South Wheal Maria
East Wheal Rough Tor	Wheal Susan
Great Wheal Frederick Tin Mine	Victoria Tin Mining Company
Grambler and St. Aubyn	West Wheal Rough Tor
Great Wheal Rough Tor	Exmoor Wheal Eliza
Holmbush	Goonvrea
Wheal Mary and Elizabeth	North Wheal Camel

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NORTH WALES MINING COMPANY, county MERIONETH, UPON THE COST-BOOK SYSTEM.

Divided into 12,500 parts, or shares, with a deposit of £2 10s. per share.

By a clause in the Cost-book the shares are limited to £10 each, but it is not anticipated that more than £5 per share will ever be required; and no call beyond the original deposit of £2 10s. per share will be made, until after a dividend shall have been declared.

OFFICES—No. 2, NEW BROAD-STREET, LONDON.

TRUSTEES.

The Right Hon. Lord Viscount Lake, Gloucester-place, Portman-square, and Aston Clinton, Bucks
The Hon. Edward Cecil Curzon, Scarsdale House, Kensington
Sir Harry Dent Goring, Bart., Tryaclwyn, Anglesea, North Wales, & Highden, Sussex
Luke James Hansard, Esq., Southampton-street, Bloomsbury-square.

COMMITTEE OF MANAGEMENT.

The Hon. Edward Cecil Curzon, Scarsdale House, Kensington
George D. Aubin, Esq., Southsea, Hants
Edward Harding, Esq., 44, Great Ormond-street
James Harvey, Esq., Brynygwin, Dolgelly, North Wales
J. Homfray, Esq., 22 A., Connaught-square
J. M. Macdonnell, Esq., M.P., 52, Manchester-street, Manchester-square
William Henry Rough, Esq., Middle Temple

(With power to add to their number).

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PRINCIPAL MINING CAPTAIN—Capt. W. Williams, of Praze, near Camborne, Cornwall.

MANAGING CLERK AT THE MINES—Mr. J. C. Goodman.

BANKERS.

LONDON.—Messrs. Glyn, Halifax, Mills, and Co., Lombard-street.
WALES—Messrs. Jones and Williams, Dolgelly, Merionethshire.

SOLICITORS.

LONDON—W. W. Fisher, Esq., 3, King-street, Cheapside; and Messrs. Wynne Williams, and Macleod, Temple.
WALES—Messrs. Owen and Griffiths, Dolgelly, Merionethshire.

ANALYTICAL CHYMIST—Dr. Andrew Ure, F.R.S., F.S.A., Charlotte-street, Bedford-square.

PURSER AND SECRETARY IN LONDON—W. T. Griffiths, Esq.

The mines proposed to be worked by this company extend under a surface of above 1000 acres, and are situate in the neighbourhood of Dolgelly, in the county of Merioneth.

Prospectuses and every information can be obtained at the offices of the company, 2, New Broad-street, City, where specimens of the ores, and original assays by some of the principal assayers of the present day, as well as the manuscript reports of several eminent mining captains, may be inspected.

Application for shares to be made to the purser, at the offices of the company, the solicitors, and the following brokers and agents:—Mr. B. Rankin, stockbroker, 23, Token-house-yard; Messrs. Watson and Cuell, mining agents and sharebrokers, St. Michael's-alley, Cornhill; and Mr. C. W. De Bernardy, 46, Leicester-square, London; Messrs. T. Cardwell, and Sons, and Mr. J. Fernyhough, Manchester; Mr. P. Kempson, sharebroker, Birmingham; Mr. C. S. Edsall, Truro; Mr. J. Cunningham, jun., Bristol; Mr. T. A. Marten, Swansea, South Wales; and Mr. J. Russell, Exchange south-east Liverpool; Messrs. C. Wellbeloved, and Co., Leeds; and Capt. W. Williams, near Crowan, Cornwall. Copies of the prospectus can also be had at the offices of Mr. H. English, mining engineer, 25, Fleet-street; and at the *Mining Journal*, 26, Fleet-street, London.

NORTH WALES MINING COMPANY.—Notice is hereby given, that NO FURTHER APPLICATIONS for SHARES in the above company can be RECEIVED after the 26th inst. By order of the committee,

W. T. GRIFFITHS, Secretary. 10

TO CAPITALISTS—THE ELY VALLEY.—TO BE LET, BY TENDER, all those SEAMS of highly-bituminous COAL, lying under several hundred acres, in the above valley, and containing, in the aggregate, more or less, 35 feet of workable coal—the greater part of which is available by water-power, the property being bounded by the River Ely and its tributaries. Also, will BE LET, the LEAD MINE on the above property, which, when worked, 60 years ago, produced ore of the richest quality—specimens of which, as also of the coal, may be seen, and particulars obtained, by application to the Rev. James Cozens, whose primary object being the opening of the valley, he would be satisfied with a fair sleeping rent and a moderate royalty.

The South Wales Railway is now in progress within three miles of the property, and a branch, to join that line, might be made at a comparatively trifling outlay. The distance from the nearest point of junction to the port of Cardiff would be about nine miles.

Ynis-y-Pîwm, near Cardiff, June 28, 1847. 11

TO CAPITALISTS—ELIGIBLE INVESTMENT.—TWO SIXTEENTH SHARES in an extensive and valuable SLATE QUARRY, held under the Crown, and situate about four miles from BANGOR. A capital of upwards of £20,000 has already been invested, and 10 per cent. returned in the first year. An extension of the works has now been determined on, with an increase of capital to £32,000. One of the proprietors wishes to DISPOSE of a PORTION of his INTEREST: the price per share is from £1600 to £1700, and the purchaser might suit his convenience in the time of payment. The demand for slates is unlimited, and the price has lately advanced 10 per cent. The person wishing to sell is associated in this quarry with several gentlemen—merchants of long standing in London, &c., whose names guarantee the highest respectability.

Further particulars may be known, and an inspection of the books of the company obtained, by application to Messrs. Crossman, Sommers, & Co., 28, Threadneedle-st., London. 12

COUNTY WATERFORD—SLATE QUARRY TO BE SOLD.—The INTEREST in ROSS SLATE QUARRY, distant nine miles from the city of Waterford, four from Kilmacthomas, three from Kilmeaden, three from Portlaw, and three from the celebrated copper mines at Bonmahon.

A considerable sum has been expended by the late proprietor in exploring the above quarry, and erecting suitable machinery to work it: the quality of the slate raised has been pronounced, by eminent judges, to be of a superior description, and not inferior, in mineral qualifications, to the best Welsh slate, as will be seen from the annexed testimonials.—This concern has been at work for the last eight or nine years, during which period the produce has been extensively made use of in covering houses in the neighbourhood of the quarry, and for many miles round. Markets have been established for the sale of them in the following towns—viz.: Carrick-on-Suir, Clonmel, Cahir, Tipperary, Wexford, and the city of Waterford, where they have become established, and in much repute. Houses covered with them, as far back as the opening of the quarry, may be seen, where no trace whatever of decay or discolouration can be observed.

The quarry being only distant three miles from Kilmeaden Pill, where boats can load or discharge, and a little further down vessels; there is great facility for conveying the produce to the places before-mentioned and other markets.

This concern has only stopped working since the death of the late proprietor, which took place last April, and could be resumed without much expense, as new machinery has been erected, and the floor of the quarry free from rubbish.

Persons wishing to become purchasers of the interest in this concern, will be fully informed as to title, profit likely to be realised, and any other information requisite, on application to Arundel Hill, Esq., Donnybrook, Doneraile, Ireland, who will close with a purchaser, should reasonable terms be offered, as he is desirous to dispose of the concern without reserve.—John Hovenden, the late steward, who resides adjacent to the quarry, will, on application, show the concern, machinery, &c. 13

TESTIMONIALS.

Extract from Report on Ross Quarry, by Messrs. Watson and Coulthard, engineers.

In conclusion, we may state, that the Bangor and Ross slate are nearly equal, but the latter is considered to stand the weather better.

From T. Oldham, Esq., M.R.A., Curator of the Dublin Society, and Engineer to the University of Dublin—August 8, 1844.

There were a few large ones (slates), which seemed sound, clean, and not heavy, and the general quality was not inferior to the ordinary Strawberry slates (same vein as Bangor)—the Ross did not appear to me liable to vegetate.

From Mr. Charles Hovenden, Blackrock, Dublin—May 31, 1844.

I showed Mr. Owens (architect of the Board of Works) the Ross slates, and he highly approved of them; and gave Mr. Bell permission to cover the Government work with them, now in progress, at the Police Station, Kingstown.

Portlaw, May 21, 1845.

In reply, we may state, that, within the last five or six years, we have covered 30 or 40 houses with Ross slates; and they are a useful, good looking, article, and we have no reason to doubt their proving durable in quality.

For MALCOMSON, BROTHER, & SHAW.
(Signed) ROBERT SHAW.

Curraghmore, May 16, 1845.

I can certify, that the Ross slates are the best that I have seen—they cover very well; are a good sound slate, and the weather does not affect them. The tenants are using them on the estate, where they are highly approved of.

(Signed) RICHARD EGAN,
Slater to the Marquis of Waterford.

Wexford, May 22, 1845.

I received your letter, and likewise the case, containing the samples of slates, which, I must say, are very good, and will surely take here.

(Signed) NICHOLAS HAYES, Architect.

FOREMAN WANTED.—JOHN AND ROBERT MALLET WANT a FOREMAN, to MANAGE their WORKS, on the ROYAL CANAL, near DUBLIN, chiefly employed in making RAILWAY FASTENINGS and LIGHT CASTINGS.—Application, in own hand, addressed as above, within a fortnight.

Victoria Foundry, Dublin, July 12, 1847. 14

TO TUNNELLERS—SCOTTISH CENTRAL RAILWAY.—WANTED, upon this line of railway, a NUMBER of GOOD MINERS, accustomed to tunnel work, in soft ground. Liberal wages will be given to good workmen.—Application to be made at the office of Messrs. J. Stephenson & Co., contractors, Stirling.

July 12, 1847. 15

IRON GROUND CRANES.—RAILWAY COMPANIES, DOCK COMPANIES, WHARFINGERS, &c. &c., can be SUPPLIED with IRON GROUND CRANES, of superior construction, and of any size, to lift from one to ten tons each.—Drawings and prices may be had on application to Mr. Alex. Reid, Monument Chambers, Fish-street-hill. 16

PIG-IRON.—JAMES BANKS AND CO. have always FOR SALE SCOTCH PIG-IRON, deliverable, free on board, at the Broomielaw, Port-Dundas, Ardrossan, and in the Frith of Forth, at Charleston.

Glasgow, 21, Renfield-street. 17

BLAKE AND PARKIN, MEADOW STEEL WORKS, SHEFFIELD, MANUFACTURERS OF RAILWAY and OTHER SPRINGS, Improved Patent PLATED MOTION BARS, BUFFER-RODS and ENDS, CRANK PINS, PISTON RODS, ENGINEERS' FILES, CIRCULAR and MILL SAWS, and CUTTERS of all sorts. 18

WILSON & FRASER, 2, WELLINGTON-BUILDINGS, LIVERPOOL, and 13, EXCHANGE-PLACE, GLASGOW, have always ON SALE PIG-IRON, BAR-IRON, RAILWAY CHAIRS, and RAILWAY BARS. 19

MR. R. TREDINNICK, MINING AGENT AND DEALER IN EVERY DESCRIPTION OF SHARES.

THREE KING'S COURT, LOMBARD-STREET, LONDON. 20

THOMAS P. THOMAS, MINE AGENT, AND DEALER IN RAILWAY AND OTHER SHARES.

18, *THREADNEEDLE-STREET, LONDON.*

BUYER in Wheal Trelawny and Wheal Mary Ann, at fair market prices. 21

MINING OFFICES, 1, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.

WATSON AND CUELL, MINE AGENTS.—N.B.—STATISTICAL INFORMATION furnished (on application) to SHAREHOLDERS in MINES in Cornwall, Devon, Scotland, Ireland, Wales, and Spain. 22

WILLIAM H. SMITH, MINING SHARE AGENT, 10, *WARNFORD-COURT, THROGMORTON-STREET, LONDON.* 23

JONATHAN DAVEY, MINE AGENT, SURVEYOR, AND SHAREBROKER,

MATTHEW-STREET, TAVISTOCK. 24

Mines surveyed, inspected, and reported on, at the shortest notice; plans, sections, and dialling performed, by day or contract.

JAMES LANE, MINING SHARE DEALER, 75, *OLD BROAD-STREET, LONDON.* 25

JOHN TREGONING, MINE SHARES COMMISSION AGENT, *HIGH-CROSS, TRURO.* 26

BRITISH MINING OFFICES, 41, MOORGATE-STREET, LONDON.—PROSPECTUSES may be had, and ORIGINAL SHARES ALLOTTED in the COPPER and SILVER-LEAD MINES connected with these offices, on application to the secretary, THOS. HENRY TAUNTON. 27

MONEY.—MESSRS. WINSTANLEY & CO., Sharebrokers, having at their command a very large SUM of MONEY for INVESTMENT, inform their friends and the public, they are prepared to make ADVANCES on the deposits of English or Foreign Railway or Mining Shares, upon exceedingly advantageous terms: they also BUY and SELL every description of STOCK at much less commission than usually charged.—6, Bank Chambers, City, opposite the Bank of England. 28

TO BE SOLD, BY PRIVATE CONTRACT, at GODOLPHIN MINES, ONE 36-inch PUMPING-ENGINE, 6 feet stroke, equal beam, boiler, 8 tons, balance-bob, and first piece of rod.

ONE 24-inch STAMPING-ENGINE, 8 feet stroke, boiler, 11 tons.
ONE 24-inch WHIM-ENGINE, 6 feet stroke, boiler, 4 tons, and cage.
ONE 18-inch WHIM-ENGINE, 4 feet stroke, boiler, 7 tons, and cage.
SIX TUBULAR BOILERS, 11 tons each.
A large IRON BALANCE-BOB, 12 tons.

Application to be made to Capt. R. Williams, on the mines.

Dated Godolphin Mines, Helston, Cornwall, May 27, 1847. 29

TO BE SOLD, BY PRIVATE CONTRACT, a 21-inch cylinder PUMPING ENGINE (single) 5 feet stroke, equal beam, with boiler, 8 tons, in good condition, and now standing on Bowden Hill Mine, about eight miles from Morwellham, on the River Tamar.—For further particulars apply to Captain W. Williams, Wheal Friendship, near Tavistock. 30

ON SALE—A VALUABLE SLATE QUARRY, on one of the best veins, and in the vicinity of some of the most successful quarries in CARNARVONSHIRE. The openings have been carried on to the extent of satisfactorily testing the quality of the rock, and laying open a part for highly profitable operation.—Apply (post-paid) to "A. B.," Amseran Office, Post-office-place, Liverpool. 31

IMPORTANT TO MINE ADVENTURERS.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, ONE-FOURTH, ONE-THIRD, or HALF, of one of the most promising MINES in this county. The outlay, to get the mine in good course of working, will be £10,000; for which sum, speculators will receive at least 20 per cent., after the first year. Parties, therefore, taking one-half of the mine, can, if they prefer it, have the management transferred to themselves.—For further particulars, apply to "A. B.," Post-office, Truro.—July 1, 1847. 32

CONSOLIDATED COPPER MINES OF COBRE ASSOCIATION.—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of proprietors of this association will be HELD at the office of the company, 26, Austinfriars, on Monday, the 26th July inst., at One o'clock precisely.

By order of the court of directors,

26, Austinfriars, July 7, 1847. WILLIAM LECKIE, Secretary. 33

COPIAPO MINING COMPANY.—Notice is hereby given, that the HALF-YEARLY MEETING of the shareholders in this company will be HELD at their office, 23, Austinfriars, on Thursday, the 29th inst., at One o'clock precisely. This meeting will be made special, for the purpose of filling up the vacancies in the direction of the company. Any shareholder desirous of offering himself a candidate, is requested to send notice to the secretary, on or before the 23d inst.

By order of the directors,

22, Austinfriars, July 16, 1847. FRED. GRELLET, Secretary. 34

EUROPEAN GAS COMPANY, 39, Finsbury-circus, July 9, 1847.—The directors hereby give Notice, that a CALL of FIVE POUNDS per share, on the SHARES ALLOTTED the 17th June, 1844, is required to be PAID on or before Monday, the 13th day of September next, at the banking-house of Messrs. Glyn, Halifax, and Co., Lombard-street, London, pursuant to the provisions of the Deed of Settlement. By order of the Board, J. B. GREAVES. 35

HOLYFORD COPPER MINING ASSOCIATION.—The SECOND GENERAL HALF-YEARLY MEETING of shareholders will be HELD at the office, 34, Great Winchester-street, on Wednesday, the 28th July inst., at Twelve o'clock, for transacting the ordinary business of the association.

London, July 13, 1847. J. W. BUCKLAND, Jun., Secretary. 36

TRELEIGH CONSOLIDATED MINING COMPANY.—A DIVIDEND (the second since May last) of SIX SHILLINGS per share—being 5 per cent. on the paid-up capital—has been this day declared, PAYABLE on Monday, the 2d of August, and on every succeeding Monday, between the hours of [illegible] and Three o'clock. The Coupons, with a list, according to a form, which may be obtained at the office, must be left for examination three clear days previous to payment.

57, Old Broad-street, July 5, 1847. WM. NICHOLAS, Secretary. 37

THE PATENT SAFETY FUSE FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most CERTAIN MODE of effecting this very hazardous operation. From many testimonials to the usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.G.S., &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

At the extensive foundry of M. Marcellis, at Boverie, in [illegible]m, they have constructed a cylinder, which is the largest hitherto cast in the province of Liege—having employed no less than 120,000 lb. of [illegible]

HAARLEM LAKE.—The drainage of this [illegible] constructing in this county, to other engines, with improvements, [illegible] when finished, it is understood, the hasten the completion of that [illegible]own bordering on the lake will, by the sewage of all the cities and [illegible] over the surface of the bed of the lake, to same engines, be conveyed [illegible] adjoining, will, within the next seven years, be fur- irrigate it; so fertile [illegible] to the Dutch and London markets—the result of science water, and the practice.—*Falmouth Packet.*

[illegible]nishing for GEOLOGISTS.—The *Journal des Débats* publishes the following [illegible] dated Odessa, the 4th inst.:—"The Councellor of State, Erdmann, pro- [illegible]sor of geology at the imperial university of Dorpat, who at this moment is travelling in the south of Russia, has discovered, in a property situated to the north of Odessa, several skeletons of fossil animals of enormous dimensions. The skeletons are 83 in number—viz.: 6 elephants, 1 rhinoceros, 2 oxen, 4 stags, 1 antelope, 61 bears, 2 hyenas, 2 dogs, 3 cats, and a ruminating animal, species unknown. Those skeletons, together with the bones, were found under a thick layer of calcareous earth. The discovery made by M. Erdmann is the more remarkable, as hitherto there has never been any remains of the antediluvian animal reign discovered in Russia."

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Union Bank of Australia—offices, at One.

TUESDAY.....Lostwithiel Consols Mining Company—offices, at Two.
Commercial Bank of London—offices, at One.
London Cemetery Company—Radley's Hotel, Blackfriars, at Eleven.

WEDNESDAY...City of London Gas-Light Company—offices, at Two.
Mutual Life Assurance Society—offices, at Twelve.

FRIDAY.....Trenance Mining Company—Mr. Watson's, Cornhill, at Twelve.

SATURDAY.....Birmingham and Oxford R'way—King's Arms Hotel, Westminster, Eleven.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*"

ST. KATHARINE DOCK COMPANY.

The half-yearly general meeting of proprietors of this company was held at the Dock House, on Tuesday, the 13th inst., for the purpose of declaring a dividend for the half-year, ending the 30th June last, and for the election of 21 proprietors, as directors of the company, for the year ensuing.

THOMAS TOOKE, Esq., in the chair.

The SECRETARY read the notice convening the meeting, when

The CHAIRMAN briefly addressed the proprietors; and observed, they were aware that the accounts of receipt and expenditure, according to the Dock Act, were only submitted to them for inspection in the month of January in each year, and that the amount of dividend then declared governed the July dividend. Under those circumstances, the directors proposed that a dividend should be declared of 2½ per cent., for the half year ending the 30th June last, on the capital stock of the company, and upon the instalments paid on the additional stock subscribed for; the amount of income tax payable on such dividends, to be defrayed by the company, and the dividends to be payable on Wednesday, the 21st inst., and following days (Sundays and holidays excepted), which proposal was unanimously adopted by the meeting. The Chairman next adverted to the business transacted in the St. Katharine Docks during the last six months; and referred to an abstract of the statistical and comparative returns which had been laid upon the table for the information of the proprietors, of which the following is a copy—showing a very large increase in the landings, and in the stock of goods in warehouse on the 30th June last;—

ST. KATHARINE DOCKS—ABSTRACT.

	1845. Tons.	1846. Tons.	1847. Tons.
Stock of goods in warehouse on June 30	62,269	63,433	68,879
Increase			5,444
Goods landed during six months, ending June 30	56,580	52,716	73,739
Increase			21,023

SHIPPING AND TONNAGE FOR THE HALF-YEAR.

	1845. Ships.	1845. Tons.	1846. Ships.	1846. Tons.	1847. Ships.	1847. Tons.
Ships with cargoes	300	84,422	324	87,380	330	87,719
Increase				6		330
Ships entered light to load	158	15,294	112	11,440	130	12,479
Increase				18		1,039
Total increase				24		1,378

PORT OF LONDON.

Number of vessels, with their registered tonnage, that entered from foreign parts with cargoes during the six months ending 5th July, 1845, 1846, and 1847, distinguishing the British from the foreign ships:—

	1845. Ships.	1845. Tons.	1846. Ships.	1846. Tons.	1847. Ships.	1847. Tons.
British	2160	480,886	2303	494,916	2599	570,904
Foreign	1003	141,995	993	165,651	1685	223,364
	3163	622,881	3296	660,567	4284	794,268

Increase, chiefly corn and provision laden.

The CHAIRMAN, in reply to a question from a proprietor, observed, that the established rule adopted at each July meeting, of not exhibiting financial accounts for the preceding half-year, precluded him from entering into any particulars; but he felt himself justified in saying, that the net earnings during that period exceeded the dividend declared, and which was payable on the augmented capital, by conversion, with a provision also for the payment of the income tax on the amount of such dividend—a communication which appeared to give very great satisfaction to the meeting.

The ballot for 21 directors of the company for the year ensuing was then proceeded with, who were elected, when a highly complimentary resolution of thanks to the chairmen, and the rest of the directors, for their zealous exertions to promote the interests of the company, was passed unanimously, and the meeting thereupon separated.

ALFRED LIFE ASSURANCE SOCIETY.

The annual meeting of this society was held in the society's premises, Lothbury, on Wednesday last.—Sir DAVID SCOTT, Bart., in the chair.

The following report was read by the SECRETARY:—

The directors have much pleasure in submitting their annual report to the members of the association. The accounts of the society have been examined, and approved by the auditors, and abstracts of them are laid on the table for general inspection. The annuity fund remains unaltered, save in the diminution necessarily arising from the payments made to the annuitants, and the small sum which it contributes to the general expenditure. The assurance fund account exhibits an income arising from interest and premiums of 18,000*l.* within a few shillings—2943*l.* 13s. 5d. of which result from the new policies issued during the year, and which amount to 101, making an average of about 750*l.* each. The chief payments from this fund have been for claims on decease of lives assured, 4663*l.* 14s. 8d.; for premiums returned on dropped policies, 1117*l.* 11s. 5d.; and for expenses of management, 2279*l.* 12s. 11d. After making provision for these and every other demand, the directors are happy to say, that a clear surplus of 9245*l.* 18s. 7d., has been carried to the credit of this fund, which, consequently, now amounts to 55,218*l.* 19s. 5d.

It was stated by the chairman at the last annual meeting, that the society had been particularly fortunate as regarded the mortality pervading its members; this feature still continues remarkably prominent; amongst the large number of individuals now registered in the books of the society, only four deaths have occurred during the year, certainly not half the number, which it is only reasonable to expect, would occur within that period. The directors believe there is no instance on record where, under similar circumstances, the deaths have been so few, and the amount claimed so small, as they have been in the "Alfred;" and they are the more satisfied with this result—inasmuch as it affords a gratifying testimony to the care and discrimination exercised in the selection of the risks, independently of its important influence on the general prosperity of the association.

The directors cannot, perhaps, better illustrate the general progress of the society than by calling attention to the manner in which its funds have periodically increased since its formation.—The assets amounted in 1839 to £16,958 9 11

"	1841 to	32,266 14 1
"	1843 to	57,111 6 2
"	1845 to	72,975 17 3
"	1847 to	99,788 1 1

From this progression it is obvious, that the Alfred will, at no distant period, become an office of considerable extent and importance; and the directors would especially wish it to be borne in mind, that, as the accumulated capital augments, that contributed by the shareholders becomes of less and less moment, so that the assured will have practically all the advantages to be obtained in a mutual office, whilst they have enjoyed the security afforded by a subscribed capital when it was most needed.

The directors are not aware that there is any thing in the present state of the society's affairs to call for further remark; they continue to use their best exertions to extend the business of the association, and to conduct it with economy; and they conceive that they are justified by the success which has hitherto attended their efforts, in anticipating for the Alfred a career no less beneficial to its members than gratifying to themselves.

From the balance-sheet, which was also read by the SECRETARY, it appeared that the assets of the company amounted to 286,490*l.*, and that among the more important items there were 8080*l.* vested in railway debentures, 13,600*l.* in 3½ per Cent. Stock, 11,906*l.* in 3 per Cent. Consols; value of premiums, 168,146*l.*; loans on mortgage, 26,858*l.* On the other side of the balance-sheet there was of paid-up capital, 17,550*l.*; assurance and annuity fund, 82,538*l.*; value of sums assured, 176,800*l.*; and sundry other items, 9801*l.*

The CHAIRMAN then addressed the meeting; he said the directors had requested the favour of their attendance, not because they had anything particular to communicate, but because the rules and regulations of the company required that there should be an annual meeting of the society. By the documents now upon the table, they would observe that the "Alfred" fully maintained its position, and that it had issued the average number of policies; that, in fact, its progress during the last year, had been in a steady, safe, and very profitable business. He feared the members must allow the directors to attribute very much of this prosperity to their exertions and influence within their own spheres; and they felt that the only mode in which they could meet the immense competition now existing was, to carry out a fair and liberal system in their mode of dealing with the public. The directors had only one subject of regret, and he trusted the meeting would excuse this allusion to it. Their regret was, that they received so little assistance from the shareholders. It would give them great pleasure could they infuse into their constituents a portion of their zeal; and though their co-operation had been long delayed, he still hoped that it would at last be extended to the directors; and then the "Alfred" would become one of the leading and most important establishments in the metropolis. If there was any information which any gentleman desired, it would be both the pleasure and the duty of the directors to afford it. He might add that the Deed of Settlement was now prepared; it had been long delayed, but perhaps they had gained by experience. It would be ready for inspection and signature on and after the 1st of August next.—The report was then moved, seconded, and unanimously adopted; and thanks having been voted to the chairman, the meeting separated.

UNION BANK OF LONDON.

The eighth annual meeting of this bank was held at the establishment, in Princes-street, London, on Wednesday, the 14th inst., and was well attended.

Sir PETER LAURIE, Knt., in the chair.

Mr. W. LAURIE (the secretary) having read the advertisement convening the meeting, and the report of the directors (both of which will be found in our advertising columns);—the CHAIRMAN then said, it would be unnecessary for him to address them on the subject of the report, which they were now familiar with. All he could say was, that the document laid before them was a *bona fide* and true account; and he should be only speaking the sense of the directors, if he said it ought to be as consolatory to the proprietors as it was to the directors themselves. (Hear.) They had the pleasure of congratulating the shareholders on the prosperous state of this bank, which had been fewer years in existence than any other in the metropolis; and, as to its comparative progress, he thought they had no reason to complain. (Hear, hear.) They would see by the paragraph in the report that the reserved shares were safe, and a mine they had not yet dug; but when they did so, it would turn out a very important one for the shareholders—for, by the sale of those shares to the best advantage, they might expect their reserve fund to be increased to 100,000*l.* They were, however, quite safe for this year; but no doubt, next year, it might be found judicious to take the premiums to the reserve fund. They had now 40,000*l.* as a reserve; and should the same prosperity continue till the next annual meeting, there would be probably a further sum of 20,000*l.* added to the reserve fund. The directors did not request power to sell these shares, except for their own particular advantage, or at a time of emergency, when a larger capital might be advantageously employed, when they would come as a *bonne bouche* for the shareholders. They had the pleasure of recommending a dividend of 6 per cent. for the whole year—that was 2½ per cent. paid in Jan., and 3½ per cent. for the past half-year—which rate of dividend they would be able, no doubt, to continue, with something more at a future day. (Hear, hear.) In conclusion, he would move that the report, which had been read, be printed and circulated amongst the proprietors.

Mr. SPOTTISWOODE (deputy-chairman) seconded the motion.

Mr. ANDERTON did not see the necessity of appropriating those reserved shares. If they made the capital larger, they must expect the smaller dividend. It appeared to him, that the capital employed was sufficient; it was, therefore, dangerous to give the directors power to distribute those reserved shares. They would certainly be appropriated amongst the general body, but more to the advantage of those gentlemen who held the largest number of shares, many of whom were in the direction. (Hear, hear, and laughter.)

A PROPRIETOR said, they would be allotted *pro rata*, and he saw no objection to the directors getting any advantage they might from being large shareholders. (Applause.)—Mr. ANDERTON further observed, that he did not object to the report; but, as to these reserved shares, he still maintained, that they would be much better where they remained, than to be issued amongst the proprietors.—The CHAIRMAN said, the hon. proprietor would have ample notice of the intention of the directors in that respect, and he might rely upon it, that they would select the best possible period for the advantage of the bank in appropriating those shares. They had power by the deed to augment the capital, but they would not avail themselves till such a course should be found advantageous to the bank. (Hear, hear.)

Mr. GEACH spoke highly of the measures adopted by the directors, in relation to the public accommodation; and he more particularly dwelt on the soundness of the principle of allowing interest to their customers, by which a large capital had been at their command, whilst other banks had been greatly inconvenienced, during the late panic especially.

Mr. WAGSTAFF also eulogised the conduct of the directors, and considered they were quite worthy of the confidence of the proprietors; he considered the subject of the reserved shares could be well left to their discretion.

Mr. ALAND was highly satisfied with the report; but he was so, because they were doing well—that, however, was no reason why they should not do better. He regretted to find that the directors had refused to keep the accounts of building societies.

The CHAIRMAN said, he knew that was the case, for he had not the best opinion of building societies; he had always thought they were dangerous speculations; he had declared it from the bench; and he now said, they were of no use to them in their banking operations—but he hoped they were not to be called to account there for their mode of management in their banking affairs; if so, he must call upon the proprietors to rally round the directors.

Mr. BROWN asked, how it was that the item of 5090*l.* was carried to a new account?—Mr. LAURIE (a director) said, the old profit and loss account was carried into the general account.—Mr. SCRIMGEOUR observed, that it was not carried to that account, without rebating those bills not yet due, which were done at the very liberal amount of 5028*l.* (Hear, hear.)

The report was then adopted unanimously.

Peter Laurie, Esq., James Farquhar, Esq., and John Chapman, Esq., were elected directors of the company unanimously.

A vote of thanks was passed, with much approbation, to the court of directors for the great zeal and ability displayed by them in the management of the bank's affairs.—The CHAIRMAN, in returning thanks, observed that they were as anxious about the bank as if it was their own property. That anxiety, he assured them, would continue on the part of the directors; and he only hoped that, year after year, they would receive the same meed of approbation at the hands of the proprietors. (Applause.)

Mr. ANDERTON proposed a vote of thanks to Mr. Scrimgeour, the general manager, which was seconded, and agreed to unanimously.

Mr. SCRIMGEOUR returned thanks.

Mr. Clack and Mr. Wight (branch managers) also received the thanks of the proprietors, likewise Mr. Walter Laurie (the secretary), who severally returned thanks.—After a vote of thanks was passed to the chairman, the meeting adjourned.

LONDON JOINT-STOCK BANK.

The half-yearly meeting of this company was held at the establishment in Princes-street, Bank, on Thursday last.

JOHN C. LOCHNER, Esq., in the chair.

The SECRETARY read the following directors' report:—

The directors have the pleasure of presenting the accounts of the bank, for the last half-year, and of informing the shareholders, that the net profit for that period amounts to 34,663*l.* 1s. 6d. In pursuance of the determination expressed in their last report, the directors have appropriated 18,000*l.* for the payment of the usual dividend, after the rate of 6 per cent. per annum—carrying forward the sum of 16,663*l.* 1s. 6d. as undivided profit, to be disposed of at the conclusion of the year. The dividend will be payable on and after Friday, the 23d July inst.

From the statement of accounts, it appeared that the gross balance of profit for the half-year was 59,005*l.* 16s. 4d., from which had been paid for current expenses, 18,225*l.* 17s. 6d.; bills discounted, not yet due, 11,116*l.* 17s. 4d.; dividend for the half-year, at 6 per cent. per annum., 18,000*l.*—leaving balance of undivided profit, 16,663*l.* 1s. 6d.

The CHAIRMAN moved, that the dividend, at the rate of 6 per cent. per annum be declared, and also that the report be printed and circulated amongst the shareholders.—G. H. FOSTER, Esq., seconded the motion, which was carried.

Mr. Deputy CORNEY thought the proprietors would not like to leave the room without recording their sentiments as to the conduct of the directors. He should briefly move, that the thanks of the meeting be given to the chairman and directors, for the able manner in which they had managed the affairs of the bank, and for the admirable results they had obtained for the proprietors.—The motion was seconded, and agreed to unanimously.

A PROPRIETOR threw out a suggestion as to the expediency of increasing the capital of the company by issuing new shares, or by a call on the present shares, if it should be found more desirable. Looking at the value of money at the present time, and the probability of its retaining its value for several years, he thought the question of increasing their paid-up capital was worth consideration.—In answer to a proprietor, the CHAIRMAN said, it was not found to to be expedient to print the Deed of Settlement, as it could always be referred to by shareholders on application to the secretary.

Capt. ELLIOTT reported, that the Clerks' Benevolent Fund had so far progressed, that they had a sum of 400*l.* subscribed, and that it was joined by nearly all the clerks of the establishment.—The meeting then adjourned.

NORTH-WESTERN BANK OF INDIA.

At the half-yearly general meeting of proprietors, held at Meerut, on Feb. 5, Colonel GWATKIN, in the chair,

the report of the directors was highly satisfactory; the net profits exhibited on the transactions for the half-year ending the 31st Dec. last, amounted to Rs. 1,99,824 2 4, which would admit of a dividend of Rs. 16 14 8 per cent. per annum; but it was strongly recommended, that not more than 12 per cent. should be declared, in order to allow the balance of Rs. 47,728 9 10 to be carried to the reserve fund. During the year 1846, the bank had been most prosperous. On the 31st Dec., 1845, a dividend of 10 per cent. was paid; there was a paid-up capital of 20 lacs of rupees, and a reserve fund of only Rs. 31,149. By the end of 1846, the capital increased to 30 lacs; 12 per cent. could be paid, and the reserve fund increased to Rs. 1,57,429 10 5. The report expressed a hope that this state of their affairs would enlist the confidence of the proprietors and the public. The increasing business of the bank demanded a further increase of capital; and it was recommended to raise an additional 10 lacs of rupees—2½ lacs to be offered to holders of shares on the 31st Dec. 1846; and should they be unable or unwilling to take them up, they were to be sold for the benefit of the reserve fund, paying the holders a bonus of 5 per cent.; and should any holder find himself, after the first or second instalment, unable to complete his payments, the amounts already paid to be received in payment of as many shares as they will cover; the remaining shares to revert to the bank, on payment of 5 per cent.—2½ lacs to be sold at a premium of 20 per cent., for the benefit of the reserve fund; 2½ lacs to be offered to holders of stock, on the 30th June, 1847, on the same terms as above, and 2½ lacs to be sold, on same conditions as above, for benefit of reserve fund. Six months to

be allowed to parties absent from India. From the statement of accounts, it appeared that the liabilities consisted of deposits and securities, reserve fund, bills payable, balances due other banks, profit and loss, and the paid-up capital of 30 lacs of rupees, and amounted to Rs. 43,77,995 10 10; and assets, consisting of bills discounted, loans, balances due by branches and banks, cash and bills on hand, &c. &c., to the same sum; showing a balance of profit and loss in favour of the bank of Rs. 1,99,824 2 4.

Resolutions were passed, adopting the report and accounts, and for authorising the directors to carry out the recommendations contained in the report, and empowering them to appoint committees to assist the several agents at the branch banks, as they may consider advisable. Thanks were then voted to the chairman, and the meeting separated.

IRISH WASTE LAND IMPROVEMENT SOCIETY.

A special general meeting of shareholders of this society was held at the King's Head Tavern, Poultry, on Tuesday last.

The Earl of DEVON in the chair.

The CHAIRMAN said, he felt it might be necessary for him to state why they had been called together; but, as Colonel Robinson would give a more clear and detailed account, he would not trouble the meeting with an extended statement. It was natural to suppose, that during the late distresses in Ireland, this society should suffer with other landed proprietors. (Hear.) The directors, under such circumstances, had felt it their duty to convene the present meeting, to consult with the shareholders as to their future course. Colonel Robinson would lay before the meeting the present position of the society. There were one or two courses which he thought might be pursued. He (Lord Devon), with some other directors, had an opinion what was the course to be adopted; he would not, at the present moment, state it, but wait until the individual opinions of the meeting had been first expressed. (Cheers.) No shareholder rising—

Col. ROBINSON rose, and said, as he had been nominated by the directors to lay before the shareholders a succinct account of their position, he would endeavour to do so. He regretted it was not quite so perfect as he might have desired—the seed in some places being only just in the ground, and in others it had not yet been sown. Yet, to speak of the present appearance of their property, all was looking well. (Hear.) He would lay before them a variety of circumstances, and then leave the shareholders to judge for themselves. He would commence from the first establishment of the society, and what it had done from time to time; for this purpose he had thrown together a few sentences, which he wished should be received as memoranda, and not as a report. The reports which had been generally presented to the meetings of the shareholders, had been printed; but he did not wish this statement to be printed; it was open to the perusal of every proprietor, and the members of the press might make as copious extracts from it as they desired.

We have made the following extracts from the voluminous statement drawn up; and which, we think, will be sufficient to satisfy the wishes of those who may be interested in the prosperity of Ireland, and in the future happiness of her people. For the improvement of waste lands in Ireland, the society had taken four estates—two in the county of Galway, one in the county of Limerick, and one in Sligo—on leases of 99 years. After going into some minor statements, the report says:—"In 1845, there were on the society's estate 264 tenants, occupying 1032 plantation acres. The crops were valued at 3896*l.*, the live stock at 4162*l.*, the improvements at 4396*l.*—making a total for the whole improvements and property of 12,454*l.*, or an increase on the rental of 1974*l.* In 1846, there were 318 tenants, occupying 4312 acres. The crops were worth 5502*l.*; improvements, 5130*l.*; and the stock, 5398*l.*—total, 16,030*l.* During the present year, the loss from the potato disease on the estates amounted to 2384*l.*, and the amount required to supply the same amount of food was 5426*l.*"

Several letters from the stewards of the society were then read, all of whom expressed themselves favourably of the abundant prospects of the approaching harvest, particularly of the potatoes; and that a considerably greater breadth of corn had been sown than in preceding years. (Cheers.)

The CHAIRMAN wished the meeting to remember this was the present position of the society. He wished to hear the opinions of those present, after which he would state his own views, and that of the directors. (Hear.)

Mr. BERMINGHAM was fully aware of the talent and industry which had been exercised by the gentleman who had read his statement to the meeting this day. He (Mr. B.) had recommended to the society two of the farms, which they were now working. He would not say that the society had followed out his views—he thought the society would have done better, if persons on the spot had been consulted. (Hear.) He was sure the noble chairman was aware, that this society was looked up to in Ireland, as the means of doing great good for that country, and also in this country; and he hoped his lordship would still continue to urge this society forward, for the benefit of Ireland as well as itself. (Hear.) He was satisfied with the zeal and the talent of Col. Robinson. (Hear.) He (Mr. B.) had been an agent to several estates for many years—he had large property under his control, and had been a practical man from his boyhood until now. (Hear.) He, therefore, thought he might say, he could speak as a practical man, and he felt the reclamation of waste land in Ireland was of great importance to the future development of the prosperity of the country. (Hear.) Gentlemen may not know there is a vast difference in the waste lands—some of them may make great returns, while others would absorb everything, and give back nothing in return. He (Mr. B.) had known 5000*l.* to have been expended on some lands, which did not give back 1*s.* an acre; while other lands had given back a large return, when only 3000*l.* had been expended. The report stated, that all the crops on the bog land promised to yield you a profit. He felt satisfied with the statement, as it corroborated his own views. He would now ask Col. Robinson to give the members of the society a full statement of its progress, in expenditure and receipt, from its commencement.—Col. ROBINSON replied, they had had the half-yearly statements laid before them—it was, therefore, only necessary to add them together to give the total amount of expenditure, &c.—Mr. BERMINGHAM continued: their farms were to be a model for the agriculturists of Ireland. He felt, if the land were to be put up for sale, they would not be able to get a purchaser of any advantage; and he thought the tenants would not stand in their shoes. (Hear, hear.) He would say, this society had acted in a manner, during the late disaster in Ireland, which had done it infinite credit. He felt he had done his duty in supporting the society, and would continue to do so: if other members did not do the same, and give the directors the power to improve their farms, so that they might go on with advantage, they must put them up to auction when they would yield nothing. He gave the directors credit for a desire to manage their farms well; but he did not approve of their management. They had been told the tenants improved their land, and that they would go with the society. He thought the lending of money to the tenants would be the means of uniting them with the landlords, who, in the end, would surrender the farms to the society in a state not worth its rental. He (Mr. B.) felt a strong interest in the welfare of his country; he had spent his fortune to assist in accomplishing that prosperity; and now he would express his mind with the same fearlessness in London, as on a former occasion he had done in Connaught. (Cheers.) —Col. ROBINSON: The meeting had heard Mr. Bermingham state, that he (Mr. B.) had recommended two of the estates now held by the society for their occupancy; and, therefore, that gentleman should have known the worth of them before he recommended them to the society; under such circumstances, that gentleman should have been the last to have offered any reproof to the directors. He (Col. R.) was aware no man was invulnerable. Mr. Birmingham had put himself forward as the reclaimer of waste lands; and yet he had been one of the most unsuccessful of reclaimers of waste lands. He had considered Mr. Featherstone to be one of the most successful on this question; and that gentleman, who had been examined before a commission, at which the noble chairman had presided, as well as before a committee of the House of Commons, had expressed his decided approbation of the mode on which this society had managed its estates—(hear, hear,)—and he looked to that gentleman as a great authority. Mr. Featherstone had written to him (Col. R.) approving of the mode in which the lands had been worked—at the same time, expressing his regret he was obliged to be absent this day, and begged his proxy might be used accordingly to his judgment. He (Col. Robinson) had the satisfaction of remembering that, on a former occasion, Mr. Bermingham had moved a vote of thanks to him approving of his mode of acting. (Hear, hear.) If, on his (Col. Robinson's) return from Ireland in August next, a more extended statement than that before them was required, it should be afforded to the shareholders, as he had no wish to conceal anything from the proprietors. He had the further satisfaction of stating to the meeting, that Major Beamish, who had visited the farms, had published a report, approving of their mode of acting. (Hear, hear.) That gentleman had a large farm in Kilkenny and had adopted a mode of management which would be the means, ultimately, of relieving Ireland from its present distress. He held 100 shares in this society, and had paid up all his calls. Capt. Kennedy, Mr. Blaken, and others, had also approved of the system. As the estates improve, the society gains 20 per cent. upon every 100 per cent. of improvement; and the tenant reaps the other advantages. (Hear.) Under the protection of this society, the tenants had been so active, and so industrious in their agricultural pursuits, that, during three years, they had trebled the value of the rental. He (Col. R.) would ask Mr. Bermingham, if he could name an instance of such an advance during all his experience? (Hear.) In reply to the statement, that the landlord and tenant might act in collusion to the detriment of this society, he would state to the meeting that, in several instances, the landlords, during the late distresses, had actually given up one-half of the rent. (Cheers.) They had all hitherto gone hand-in-hand; and he (Col. R.) saw no reason for their discontinuing this beneficial reciprocity. (Cheers.) In conclusion, he would say, that the society had been progressively improving; and that in 1846, there was not one tenant in arrear, and there was not one debt due to the society. —Mr. BERMINGHAM replied, he did not attend the meeting for the purpose of making a speech: his heart was on his country's prosperity, and that prosperity was looked forward to by the progress of this society. (Hear, hear.) It was, therefore, of vast importance to Ireland that their affairs should be well governed, as he was satisfied the mismanagement of Irish estates had been the ruin of Ireland. The noble lord (Clonbrock) for whom he (Mr. B.) acted as agent, had reaped the advantage of the improvement of his estates —for he had a happy tenantry, and his lordship had been elected a representative Peer from it. (Hear.) Here Mr. B. dwelt at some length upon the question of Mr. Featherstone being a successful recoverer of waste land, which he denied; but commended that gentleman as being very successful in raising and feeding of cattle. He then defended himself from the charge made by Col. Robinson, that he (Mr. B.) had recommended two estates to the society, which he admitted; but said, he had not been consulted as to the price that should be given for them.

The CHAIRMAN said, he had listened with much attention to what had fallen from Mr. Bermingham, but he could not say any beneficial results had been produced, for he (Lord Devon) did not exactly understand what that gentleman recommended—all he could understand was, that he blamed them for spending money on land, without obtaining a remuneration. He would ask, what right had Mr. Bermingham to assume they had selected such lands as would not repay them? He knows there is much good land, and capable of improvement; and can he say we have not taken the good land, but chosen the bad. We can assure him we have selected the best lands, and our selection has been made with care, and directed by the best of information. The noble chairman here defended Mr. Featherstone against the attack made upon him by Mr. Bermingham, and contended he was a successful improver of waste lands. He was well aware there were many lands in Ireland, called waste lands, which might be worked with great success. They had gone on improving as much as they had been able; but, if the shareholders did not support the directors by a prompt payment of the instalments, it was utterly impossible for them to make those rapid improvements, which, under other circumstances, they would have done. They had professed to raise a certain capital on shares of 50*l.* each, but at present they had not received more than one-fifth of the amount, and thus their operations and their influence had both been limited. (Hear.) He could assure the meeting, that if the the calls had been more promptly met, they would have improved there present lands, and have taken more. (Hear.) Their tenants had gone on improving the lands beyond their expectations, and all the society claimed on those improvements was not more than 20 per cent. He regretted they had not the power to become purchasers of land at the present moment, but this was a question which he (the noble chairman) would submit to the shareholders at the next general meeting. He was happy to say, new lights were now bursting forth in this nation with reference to Ireland, and no one could say what might be the result of it, in reference to the future prosperity and happiness of that country. (Hear.) They had a certain quantity of land, and they were under certain engagements. He thought they were certainly liable to the landlords to pay the rent; they could not turn round upon them and say, we will do no more—the landlords might say, you undertook to pay 50*l.* a share, and we shall expect you to raise that sum, for you are liable to us to that amount. Suppose we were to do, what I think no gentleman in this room would do, transfer our shares to men of straw, why, then, we might release ourselves. Those gentlemen who entered into this society must have been fully aware some time must elapse in the operations of the society, before anything in the shape of dividend could be expected; though they have not yet received any, he thought they would. He (LordDevon) was an Irish landlord, and had suffered greatly from the late calamity, and he felt the payment of the calls a heavy charge; but he was bound, as a member of the society, to continue it. (Cheers.)

Mr. PEARCE spoke in so low a tone, we could not distinctly hear him. We understood him to say, he was satisfied with what he had heard, and in consequence he would propose the following resolution to the meeting. They had heard much about Irish landlords in this country of late, but it should be remembered their estates were entailed upon them—not so with this society, which had become possessed of land under certain obligations; it was, therefore, the duty of every member of the society to fulfil those obligations, and he had no doubt that, as men of honour, they would. He now begged to move the following resolution:—"That, by the incorporation of this society, the Legislature had entrusted it with the power and responsibility of effecting a great national good, in the reclamation of the waste lands of Ireland, but that the undertaking resulting from that responsibility, however certain to produce a fair return for outlay, must of necessity be, from its nature, slow of accomplishment, even under the most favourable circumstances. That, notwithstanding the satisfactory progress of the society's affairs during the management of the estates by Col. Robinson, and which the proprietors have invariably approved at their general meetings, some difficulties of a public nature, explained from time to time to the proprietors at those meetings, and over which the directors had no control, have combined to retard the advantages naturally looked for by the proprietors. That the recent awful visitation in Ireland generally, in the destruction of its staple food, has necessarily pressed most severely on the society's funds, and called for increased exertions to carry it through a struggle, from which no Irish landlord is free. But it is the opinion of this meeting, that the circumstances alluded to do not detract from the soundness of the principle upon which the society is based, and that the obligations imposed upon the shareholders by the Act of Incorporation cannot be avoided, and ought not to be shrunk from. This meeting, therefore, feels it necessary, at this particular crisis, to express their determination to support the directors in carrying out the original objects of the society, and honourably to meet the engagements into which they have entered."—Mr. SILK BUCKINGHAM rose to second the motion.

Colonel ROBINSON said, the rise in rent was in proportion to the length of the lease. A tenant might improve to such an extent, and release himself from the payment of any rent. (Hear.) He knew an instance of a tenant receiving 53*l.* a year at the end of 16 years, clear of rent, taxes, and seed. (Hear.)

Mr. BERMINGHAM wished to know if Col. R. would point out to him any other part of Ireland where leases were granted after the same manner as by this society?

Colonel ROBINSON replied in the affirmative.

Mr. BERMINGHAM could assure the meeting he never did; he thought it a bad system.

The CHAIRMAN said, before he put the resolution, he wished the meeting to understand, that necessary funds must be raised from the members of the society, to carry out the spirit of the resolution. (Hear.)—The resolution was then put, and carried without one dissentient voice.—At the request of the meeting, the names of the defaulters were read.

The CHAIRMAN: There is one gentleman who is not present (Mr. Heathcote, the Member for Tiverton), who holds a large number of shares; he could not come here to-day, but he has communicated to us his intentions are to continue to support the society, and has expressed his strong desire for the society to proceed. Mr. Ormsby Gore, another director, has expressed his desire to retire altogether from the society, and at the next general meeting they would have to elect other gentlemen to fill up the vacancies at the board.

Mr. BERMINGHAM had pleasure in informing the meeting, that a fishing company would soon be formed, and the first scene of their operations would be on one of the society's estate. He was sorry the society had not the power to become the purchasers of the land.

The CHAIRMAN replied: they would have to go to Parliament for an Act, and it was his intention to take the sense of the shareholders on this question at the next general meeting. (Hear, hear.) They had it in contemplation of borrowing 7000*l.* from the Government, and had applied for that amount; but they had not yet received a reply to their application.

A vote of thanks was passed to the chairman, and the meeting separated.

BIRMINGHAM AND OXFORD JUNCTION RAILWAY.

Another adjourned extraordinary special general meeting of this company was held at Dee's Royal Hotel, Birmingham, on Monday; but, in consequence of the bill for amalgamating the company with the Great Western being rejected by the House of Lords on Thursday night, the attendance was small, and the proceedings occupied only a few minutes.—Mr. WM. MATHEWS (in the absence of Mr. P. H. Muntz, the chairman of the board of directors, who is now on the continent) presided on the occasion.

Mr. MOZLEY said, that in consequence of what had recently occurred, he should have to propose another adjournment. Since they had last met—in fact, so late as Friday night last—circumstances had arisen, which it was hoped would have the effect of leading to an amicable settlement of the points in dispute. He (Mr. Mozley) admitted that he was acquainted with the nature of these propositions, but as yet it would be premature and imprudent to disclose them, or make any statement upon the subject. Under these circumstances, he considered that it would be most convenient to the parties interested, that the next meeting should be in London. He moved that they now adjourn until Saturday, the 24th inst., the meeting to be held at the King's Arms Hotel, New Palace-yard, Westminster, at 11 o'clock on that day.

The motion, being seconded, was carried unanimously, and the meeting accordingly adjourned.

AMBERGATE, NOTTINGHAM, AND BOSTON RAILWAY.

A special meeting of shareholders was held at the George and Vulture Tavern, Cornhill, on Tuesday, the 13th inst.

B. BADGER, Esq., in the chair.

The object of the meeting was to decide as to what ought to be done in the present condition of the company. It appeared, from a statement read, that since the meeting on the 25th of June, the committee then appointed to confer with the directors had put several questions to the board for the information of the shareholders at this meeting, but had received no satisfactory answer, the secretary stating that there would be no board meeting till after the 21st inst.—The CHAIRMAN alluded to what he considered the impropriety of the directors refusing the offer of the Eastern Counties to take the shares at 1*l.* premium, and also the offer of the Great Northern, both of which matters ought to have been previously submitted to the shareholders.

Mr. ROGERS, after a long speech, in which he condemned the conduct of the directors in adhering to the integrity of the line, when by cutting off a portion of it, the rest would be more profitable to the shareholders, and more suitable to the wants of the country, concluded by moving a resolution, that the directors did not possess the confidence of the shareholders generally, by refusing advantageous offers for selling or leasing the line, and withholding necessary information; which acts rendered expedient a change in the constitution of the board of directors.

Mr. CAREY seconded the motion, which, after some discussion, in which Mr. Wilds and Mr. Heeley justified the course pursued by the directors, was passed with only five or six dissentients, out of a large meeting. A resolution was also passed, urging the committee to carry out their recommendation, and to canvass the shareholders generally, so as to take their measures prior to the half-yearly meeting in August, when a portion of the directors would retire.

NEW RAILWAY BILLS.—Yesterday week, 65 railway bills received the Royal assent. Aggregate capital authorised to be raised by these bills, 10,428,380*l.*, and to borrow 2,938,240*l.*—total, 13,366,620*l.*, for the construction of 600 miles of railway. During the present session, 136 railway bills have received the Royal assent, authorising the sum of 25,895,900*l.* to be raised by capital and loan, for the construction of 1442 miles of railway.

EAST INDIA JUNCTION RAILWAY.—It will be seen in our advertising columns that another important railway project has been brought forward for India, by a respectable list of promoters under the above title, which appears to offer great advantages, both in a political and commercial point of view, to some of the richest and most productive provinces of North Western India. Its object is to connect the large and populous cities of Jaunpoor, Azimgurh, Ghazeepoor, and Goruckpoor, with the great trunk line of the East India Railway at Alahabad and Benares; and we learn that so great has been the demand for shares in this important undertaking since its announcement, that the provisional committee are compelled to limit the time of application for shares to a much earlier period than they had originally contemplated.

GREAT RUSSIAN AND POLISH RAILWAYS.—The Emperor Nicholas has just taken an important decision on a strategical point of view. His Imperial Majesty has adopted the project of a vast railway, which is to join his three capitals, Moscow, St. Petersburgh, and Warsaw. This line, the terminus of which is to be the fortress of Warsaw, is also intended to complete and strengthen the system of defence of the ancient kingdom of Poland, such as the Emperor Nicholas has established it since the last insurrection of 1830. The plan of this line is not yet decided on—two projects are at this moment submitted to the imperial decision. One consists in having a single line, which would place in direct communication the four fortresses of the ancient kingdom of Poland, constructed since 1830—Warsaw, Modlin, Demblin, and Brzec-Litewski. This line would afterwards pass by Smolensk, to join Moscow and St. Petersburgh. The other, more economical, would go from Warsaw, in a direct line by Siedlce to Brzec-Litewski, and from thence to Smolensk, Moscow, and St. Petersburgh. By this second project, which would offer considerable economy, the fortresses of the ancient kingdom of Poland would be joined together by branch lines—in the two cases the terminus of this line will be constructed in the suburb of Praga. It is known that this suburb, taken by assault by Suvarroff in 1794, and where Napoleon in 1807, and the Poles in 1831, had begun to construct a bridge, is situated on the right side of the Vistula, and is separated at this moment from the town by a bridge of boats. The country this line will cross is generally flat, and will not occasion much earthwork—it is hoped it will very soon be put into execution: the total expense, it is thought, will not exceed 600,000 francs per myriametre. The railway which goes from Warsaw to the Austrian frontier, and which is already in full operation to the extent of 17 myriametres, as far as Czenstechowa, is ready for public use—the opening of the last section of this railway is announced. It will put Warsaw in direct communication with the great lines of Prussia and Austria; in this manner we shall be able in a few years to go by railway from Moscow and St. Petersburgh, to the Atlantic and to the Mediterranean.—*Debâts.*

ACCIDENTS.

Frightful Explosion at Messrs. Hall's Gun-Cotton Manufactory, Faversham.—About 11 A.M. on Wednesday morning, the inhabitants of Faversham were alarmed by a tremendous explosion, and which has, unfortunately, proved frightfully calamitous in its results—much more so, indeed, than similar accidents from gunpowder. The *Kentish Observer*, of Thursday, gives the following particulars:—"The Messrs. Hall, gunpowder manufacturers, have recently erected and appropriated very extensive works, about half a mile from this town, for the manufacture of gun-cotton; and it being known that between 40 and 50 persons, including men, women, and children, were employed therein the most melancholy apprehensions were entertained of their safety. Hundreds of persons, with frantic anxiety depicted in their countenance, were observed hastening towards the scene of destruction, with the expectation that a husband, brother, child, or friend, had been thus suddenly hurled into eternity. Volumes of smoke continued to ascend from the ruins, one of the buildings being still on fire, and in which were observed some of the sufferers still alive; and it being reported that a considerable quantity of gunpowder had been deposited in a building but a very short distance from the one on fire, the danger of approach was thus rendered most imminent. It was, however, subsequently discovered that the building containing the gunpowder was at a greater distance, which permitted some of the dead, the dying, and the wounded, to be removed as speedily as possible. The bodies of 10 persons have been taken from the ruins quite dead—one having his head blown completely off. Several persons, we understand, are missing, and arms, legs, and mutilated parts of bodies have been found, which it will be utterly impossible to recognise.—Fragments of printed paper, with directions for using gun-cotton, &c., were picked up in Faversham, having fallen from the cloud of smoke as it passed over the town; and, although the paper was torn, there did not appear to be the slightest singe. Some of the fragments, which were evidently intended for wrappers of gun-cotton, stated on them, that "a packet of gun-cotton, containing *four ounces*, is equal in strength to *twenty-four ounces* of gunpowder for mining purposes." This dreadful catastrophe has cast a gloom of deep sorrow over the neighbourhood. Nothing certain is known at present as to the cause of the accident. The explosion was wholly of gun-cotton."

Trenow Consols.—As H. Hosking, aged 60, was drawing materials, a stone fell, and fractured his skull—several bones were skilfully removed from the poor man's head, but he lies in a hopeless state.

Glengarnock Iron Company.—Two miners were killed at a shafting pit on the farm of Kilbirnie Mains.

Wednesbury.—W. Twall and J. Boys were killed by a fall of coal while working in the colliery of Messrs. Davis, Witton's-lane, West Bromwich.

Heanor, Derbyshire.—J. Short was killed by falling from a rope, while descending a pit to his work—a companion nearly shared a similar fate.

Netherton, near Dudley.—J. Heath was killed by a fall of coal at Messrs Grazebrook's.—J. Cole was killed while employed in the Limestone Quarry.

Tipton.—At the Bloomfield Iron-Works, as S. Bevan was assisting in removing a piece of iron about 3 tons weight, it fell upon the end of a pig of metal, when it rebounded a considerable height, striking the poor fellow on the back of the head, from the effects of which he died, after lingering a few hours.

Aberdeen Colliery, near Adlington.—An explosion of carburetted hydrogen took place yesterday week at this colliery, which is only a few miles from the Kirkless Colliery, by which J. and E. Rutter (father and son) lost their lives. The Brinks Pit adjoining had been stopped in consequence of being flooded; the water having been pumped out, it was found that a large portion of foul, air still remained, and the overlooker turned a stream of water down the shaft to dislodge the gas, which had the desired effect; but, unfortunately, it was forced into the Aberdeen Pit, where the two deceased were working with naked candles, and an explosion ensued, causing their instant deaths.

Level, Brierley Hill.—As J. Whitehouse and W. Collins were removing the old hearth of a blast-furnace belonging to Mr. Izod, by gunpowder, the powder ignited while charging, from the furnace not being sufficiently cool, and severely injured them both.

Great Bridge.—A dreadful accident happened here to F. Henstock, the engineer to Mr. Davis's Foundry, having heedlessly put his foot on the fly-wheel which was still, it turned round, and, losing his balance, he fell into the pit in which it revolves; some brickwork had to be removed to get him out, which took one hour and three quarters, when it was discovered he had broken a thigh and arm, and received numerous concussions; he lingered until the Monday, when death relieved him from his sufferings.

THE BRIGHTON RAILWAY—ACCIDENT.—The morning papers of Tuesday last, announced the occurrence of an alarming accident on the London and Brighton Railway—the calamity befalling a train composed of some 600 persons, who had collected together to enjoy a day's relaxation from business, and to contribute towards the funds of a deserving object—the provision for decayed printers. True, no lives were lost; and the injuries were confined to several persons receiving very severe contusions; one having five teeth knocked out of his head, and another three; while a great number, though but slightly hurt, were greatly frightened;—and most true, as was philosophically urged, "that it might have been much worse!" But, by what mischance were the lives of some hundreds of persons so perilled, as to be, apparently, miraculously preserved from destruction? From a knowledge of some of the arrangements of the day, we will examine, as well as we can, into the causes. The committee of the Printers' Pension Society made arrangements with the directors of the railway to run two special trains to Brighton, on Monday last, returning by one in the evening. On the Saturday afternoon, the secretary was waited on, to preclude the possibility of a mistake arising from inattention on the part of the society. On the Monday morning, when a great number of persons were assembled, the parties concerned, seeing no preparations, made enquiry, and were surprised to hear from the officials, that they were in ignorance of an excursion being fixed for that day; but, after some trifling delay, a train was prepared, and started, according to agreement, punctually at 7 o'clock, arriving at Brighton by 9½; the second left London at 8½, arriving at Brighton at 10½—each journey being performed with ease and safety. The return train was prepared at 7 o'clock, the time appointed, and left at 7½, composed of about 24 carriages, propelled by one engine. The journey so far as Croydon was the most agreeable and satisfactory that could be imagined; but here, considerable hesitation in speed led the party to suspect that some impediment interfered with their progress; and at the New Cross station a severe shock was felt through the entire train, by which all, more or less, were affected. As far as we can learn, the cause of the collision was owing to a train from Croydon travelling without a signal at the end: the night closing in, the Brighton engineer was unable, we suppose, properly to distinguish the Croydon train before coming close up. It is proper here to state, that at the rate the train was running, the steam must have been nearly shut off—the carriages having but the impetus of the incline to impel them: had it not have been so, what a frightful result would have ensued! From this slight narrative, our readers must form their own conclusions as to where blame attaches; to us it is evident, that at least a want of unanimity of action—a want of proper understanding—exists on the line. Something more than the usual interest has been created by this accident—first, from the unfortunate train being an excursion one; and, secondly, from the notoriety the management of this line has obtained by the frequency of accidents on it of late. It is beyond doubt, that the latter cause proved seriously detrimental to the interests of the society, to benefit whose funds the excursion was planned; the many strongly condemnatory articles published by our contemporaries, having created alarm for the safety of those travelling, and preventing many, who were otherwise disposed, from joining it; and the circumstances here narrated convince us, that there is room for improvement; while we trust the directorate will now arouse themselves, and be found equal to an honest performance of their duties, and seek every opportunity to free the public mind from the too general impression, that this fine line of railway is being sacrificed by inefficient management. The public cannot understand about the line being in separate interests, and under divided controul, and the blame of this or that accident being attributable to particular parties: nothing can tend more to create distrust in the public mind, than the fear of the arrangements of one board interfering with another. Here is a case of a large number of passengers being, to say the least, greatly alarmed by a collision, that might have been avoided. A clear line of rail should, most certainly, have been provided, and something like preliminary preparations made, by the Brighton Company, while the absence of lights on the Croydon carriages may rest with that company's generally imperfect arrangements.

THE WOLVERTON ACCIDENT.—At the trial at Buckingham, on Monday last, before Mr. Baron Alderson, of Bernard Fossey, for carelessness in turning the points wrong, by which a mail train was run into a siding, and seven lives sacrificed; the jury found him guilty, and the Judge sentenced him to two years' imprisonment, with hard labour. In their verdict, they threw blame upon the company for not keeping two men at this particular post, implying that there was too much for one properly to attend to.

RAILWAY CASUALTY COMPENSATION COMPANY.—The extension of the railway system, and the unfortunate accidents which have lately taken place, have induced some gentlemen to project a company under the above title, with a view of providing a compensation for every degree of injury that can occur to a person by accidents on railways. The premium once paid ensures compensation in case of accident throughout life on the payment of a registration fee of 1*s.* per annum, to prove that the assured remains in the land of the living. The proposed premium is to range from 1*l.* 1*s.* to 10*l.* 10*s.*, with proportionate advantages. Thus, a payment of 1*l.* 1*s.* will ensure to a person receiving an injury rendering medical advice necessary, but not incapacitating the assured from getting a livelihood, 50*l.*; for the loss of a limb, 200*l.*; and for fatal injury, 300*l.* to the assurer's legal representative; while the sum of 10*l.* 10*s.* would ensure for the same injuries, 500*l.*, 2000*l.*, and 3000*l.*, respectively. The females are assured at half-price, we presume, because it is supposed that they travel less. There is also a scale of compensation for company's servants, who meet with injuries "not occasioned by any voluntary act" of their own. A meeting is shortly to take place for the appointment of directors, &c., at which we may probably allude more at length to the project.

NEW LEVEL FURNACES, BRIERLEY HILL.—We have great pleasure in being enabled to state, that two out of these three blast-furnaces, belonging to the Right Hon. Lord Ward, will, in the course of a fortnight, be in full operation, thereby putting upwards of 100 pair of hands into employment.—*Mr. Journal.*

Mining Correspondence.

ENGLISH MINES.

BARRISTOWN.—The 18 fm. level end, west of flat-rod shaft, is at present in a slide; the rise behind this end is worth 20*l.* per fm. The winze is suspended at present, for want of sufficient air for the men to work. The 12 fm. level end, west of flat-rod shaft is improved, worth about 8*l.* per fm; the stopes on middle lode, under the same level, east and west, are worth 16*l.* per fm. In the winze sinking under the 18 fm. level, on middle lode, the lode is larger than heretofore, but not improved for ore. At Clon Mines, we are still costeaning. We hope to ship a cargo of 40 tons about the 24th.—T. Angove; G. White: July 9.

BEDFORD UNITED.—At Wheal Marquis, the lode in the sump winze, in the 80 fm. level east is 3½ ft. wide, and worth 38*l.* per fm.; in this level east the lode is 3½ ft. wide, and worth 22*l.* per fm.; the lode in the stopes, in the back of this level, is worth 25*l.* per fm. There has been no lode taken down in the 70 fm. level east; in the winze, in this level, the lode is 2½ ft. wide, good work. The lode in the 58 fm. level east is still unproductive. At Liscombe, there is no alteration in the adit level east, or rise, in this level since last report.—The lode in the south engine-shaft is 3 ft. wide, ore, mundic, and spar. In the adit level east the lode is 2 ft. wide, composed of spar, gossan, and mundic.—James Phillips: July 13.

CALLINGTON.—The engine-shaft at Kelly Bray is 26 fms. deep; a whim plat has been cut at the 25, and we are now cross-cutting towards the lode. The surface water has prevented our sinking the shaft on the course of the lode for a short time. The men are now driving west 11 fms. deep, to meet the shallow adit (now in course of driving towards them); the lode is 4 ft. wide, of the most promising composition, with small rich bunches of yellow copper ores in the gossan. In the 100 fm. level, driving south from the north engine-shaft, the lode continues to produce good work; the ground is soft in the north end; we have intersected a cross lode; the ground is now softer—lode worth 15*l.* per fm. No change has taken place in any other level. At the south mine, in the 125 south, the lode is 1 ft. big, intermixed with silver-lead ores; the back will work at a moderate tribute; in the north end no lode has been taken down. In the 112 north the lode is 1 ft. big, composed of fluor-spar, with a small quantity of silver-lead ores; in the south end an improvement appears to be taking place—the lode has not been taken down. The 100 fm. level, in both directions, is opening tribute ground. The winze, below the 90 south, is holed to the 100 fm. level; the 90 continues to produce work of an average quality. The tribute department has a favourable appearance, and our prospects, on the whole, continue good.—J. T. Phillips: July 12.

COATLITHE HILLS.—The level east from A shaft has been driven about 4 ft. during this week. The vein in the end is rather enlarged, and more solid, with spots of ore in it, and I have every reason to believe it will greatly improve as we drive eastward. The horse level has been driven about a fathom during this week.—J. M. Paull: July 10.

CUBERT SILVER-LEAD.—The engine-shaft continues spare for sinking, ground still hard and wet. In the 35 fm. level, going east and west, the lode averages 2 ft. wide, worth about 3*l.* per fm. for lead—promising levels. In the 25 fm. level, driving east, the lode is 3 ft. wide, and worth a ton of lead ore per fm.; westwards in this level we are cutting from Trebiskin to the great lode, and expect we have about 6 ft. further to drive to intersect the object. The men are getting on pretty well in sinking the new surface whim-shaft in the Earl of Falmouth's land. With respect to the tribute department, three of the pitches have improved pretty much since the last setting-day.—R. Rowe.

DEAN PRIOR AND BUCKFASTLEIGH.—In the deep adit, driving west, the lode has a very promising appearance, about 2 ft. wide, and carrying a leader of mundic against the hanging, or south, wall—present price for driving 3*l.* 5s. per fm. In the 40, or 10 fm. level under adit, the lode is about 18 in. big, composed chiefly of spar, with some iron intermixed; it appears that we are getting through the broken, or slidy, ground, the lode is again forming; ere long, passing through or under the vale, and extending to hill, I hope to find the lode more favourable and productive for ore; the change in the broken ground, that we have had to pass through, I always anticipated, as I have made mention to you before—present price for driving at this level 3*l.* 10s. per fm. The lode in the pitches, back and bottom of the 40, is looking very favourable, and the tributers are working with spirit; the lode in the pitch, back of the bottom level, is producing some fine stones of horse-flesh ore of rich quality, but not a great quantity—those indications are quite sufficient to convince me that we shall have large deposits of yellow ore in the deeper levels; in the bottom level we are driving on the south part of the lode, being of a very promising character and greatly improved for driving—present price for driving, 50s. per fm. As regards the preparation for the grinder, &c., there shall be no time lost; I have put the men this day to clear out the foundations for the shed, &c., so as to get on with this work with all possible speed.—H. Choake: July 12.

DEVON AND COURTENAY CONSOLS.—The lode in the 30 fm. level east of the engine-shaft, is 4 ft. wide, composed of peach and mundic, and soft spar, with some spots of black ore and malleable copper interspersed throughout the lode; during the driving west, in the same level, the men have intersected a slide dipping east, which seems to have disordered the lode for the present. In the engine-shaft the men are at present employed in cutting ground for bearers and cistern, and other work (preparatory to sinking a shaft to the next level, which I hope will be completed in about 10 days from the present time). The lode in the deep adit level, on the south lode, is 2½ ft. wide, composed of killas and bunches of spar, with some spots of yellow ore. In the shallow adit level, on the north lode, the lode is 2½ ft. wide, composed of flookan, mundic, white iron, and can, with a few spots of lead ore, but at present not worth saving.—N. Seccombe: July 13.

EAST CROWNDALE.—The ground in our engine-shaft is very much changed for the better—the branch of spar having worn out; and we are now in a channel of clear blue killas, which is down 58 fms. 5 ft. 6 in. I hope our progress will, in future, be much faster than it has for some time past. The ground in the Rix Hill adit level continues favourable for driving, and is in ground very congenial for tin; our engine and pitwork are all in good order.—Stephen Paull: July 13.

EAST TAMAR CONSOLS.—The lode in the 54 fm. level, north of Harrison's shaft, is 20 inches wide, composed of fluor-spar and ore; the lode in the 54 fm. level south is 2 ft. wide, good saving work. The lode in the 46 fm. level north is 18 in. wide, fluor-spar and silver-lead ores; the lode in the 46 fm. level south is 20 in. wide—a very kindly lode. The lode in the 38 fm. level south is 16 in. wide, work of a good quality. At Charlotte's, the lode in the 11 fm. level is 20 in. wide, good saving work. By having Whitson water to Furzehill, we have sufficient for all our dressing department, and also to enable us to keep 12 heads of our stamps to work by day, and 24 by night. According to the present prospects of the mine generally, there is not the least doubt but that we shall have an increase in our sampling. We shipped off on Wednesday last 80 tons of lead ores, sold to Messrs. Walker, Parker, and Co., and sampled on the same day 40 tons of lead ores for June month.—B. Robins: July 13.

ELBOROUGH.—The lode in the 16 fm. level, east of Vivian's shaft, has much the same appearance as last week; also, in the lode in the bottom of Vivian's, no alteration worth remarking, but still large, and very kindly. I sold, on Tuesday last, 5 tons 6 cwts. 2 qrs. of barytes.—R. Trevithick: July 15.

EXMOOR WHEAL ELIZA.—Up to this time our shaft has been sunk 7 fms. below the adit level, which is 2 fms. 5 ft. from the surface, making the whole depth at this time 9 fms. 5 ft., through as large strong gossan lode as I have ever seen; containing yellow and green copper ore, mundic, and white iron, of which I send you a few specimens, hoping they will arrive safe. As the lode is underlaying south, and we are sinking perpendicular, we are, consequently, leaving the south part thereof, and constantly cutting branches carrying, at times, good stones of ore. More branches, I calculate, are leading from a large gossan lode, which we have about 5 fms. north, and which we shall meet with by costeaning to sink the engine-shaft. You will perhaps recollect, that in bringing up the level to the engine-wheel, we cut a lode some 40 fms. to the east of our engine-wheel, where we broke some good stones of copper ore; we are now costeaning to cut the same, and the other lodes we are working on, about 200 fms. east from our engine-shaft. The shaft in this place is deep, so that we cannot make much progress; but we find fine stones of gossan shoad in the alluvial, and I hope to find a strong and good lode when we cut it.—Joseph Pryor: July 13.

GREAT MICHELL CONSOLS.—In the 35 fm. level, east of the engine-shaft, the lode is composed of mundic, spar, and stones of ore; in this level west the lode is producing good stones of ore, intermixed with fluor-spar and mundic, very promising. In the winze, sinking below the 22 fm. level, west of the engine-shaft, the lode is producing good stones of grey and yellow ore.—T. Richards: July 13.

GREAT WHEAL MARTHA.—The cross-cut is driven 19 fms. 4 ft., and we have now got into the capels of the lode; but as the water is issuing into it so fast, and the air so light, we shall not be able to do anything more in the end until we have fixed pipes to carry in fresh air, which will be completed by Monday next, when I hope to resume operations again. It appears we have a large hollow lode before us, as the water is descending fast from Thomas's shaft, and I expect it will be down to the 10 by Monday. I hope to give you a more detailed account of the lode in my next. In costeaning at Sherrall's, we have discovered another lode, about 150 fms. to the north of the former one (worked on), which is about 3½ ft. big, though very shallow (being 6 ft. from surface); I find it to contain iron, mundic, and a small quantity of tin.—T. Penaluna: July 10.

GUNNIS LAKE.—At Chilsworthy, the lode in Bailey's engine-shaft is 3 ft. wide, composed of spar and mundic, with good stones of copper ore, very kindly. There is no alteration in the 12 fm. level west, the same being driven north to cut the lode.—W. Richards: July 13.

HAWKMOOR.—The lode in the 15 fm. level, east of Hitchins's shaft, continues 3 ft. wide, principally spar.—P. Richards: July 13.

HEIGNSTON DOWN CONSOLS.—The lode in the 20 fm. level, east of North shaft, is 2½ ft. wide, producing some good work, and very kindly; there has been no lode taken down in this level west; the pitches, in the back of these levels, are looking favourable; we are still clearing and securing Buddle's adit level. The engineers, &c., are progressing satisfactorily with the erection of the engine, which is intended to be set in motion (to draw from the eastern shaft only as the stamps, and other machinery, is not ready, owing to the founder's inability to supply us with the required castings in time) on Monday next.—W. Richards: July 13.

HOLMBUSH.—The ground in the diagonal shaft, below the 120 fm. level is quite as favourable for sinking now as we have ever seen it; and, should it continue, it will enable us to reach the 135 sooner than we had previously anticipated, where we intend driving a level, as we intimated last week. The lode in the 120 fm. level, west of the great cross-course, is 15 in. wide, composed of spar, mundic, and stones of ore; the lode in the same level, east of Hitchen's shaft (on the north part), is 12 in. wide, composed of fine grain mundic and stones of ore. The lode in the rise, in the back of the 110 fm. level, is composed of flookan, spar, and lead—worth 6*l.* per fm. The lode in the 100 fm. level south, is 2½ ft. wide, composed of spar, with stones and spots of lead interspersed throughout, all of which is saved, and considered good work for the stamps; the pitches in the back of this level are producing very good lead, and the men making fair wages in their tribute. The masons having finished building the walls for the large stamps, we are now erecting the wheel, &c., and will, if possible, set it to work before the time promised.—W. Lean.

KIRKCUDBRIGHTSHIRE.—I regret to say, that the stopes in the back of the 30 fm. level, on the caunter and east of shaft, are not so good as last reported. Having holed the rise from the 30 to the 20 fm. level west, we have now engaged three men to stope lead in the back of the 20 fm. level west; and, having both the 30 and 20 ends west well ventilated, we now propose to sink a winze on the junction (under the rise holed) below the 30 fm. level, for the twofold purpose of ventilating the 40 end as it comes up, and open ground for stopes, as we have an excellent lode here going down. Having finished the penthouse and other matters necessary for sinking the engine-shaft, we have to-day set this to be sunk the usual size for pitwork, railroad and footway to the 50 fm. level, at 90*l.* the job; the taker is bound to have nine men, and is to have a reward of 2*l.*, provided he accomplishes the bargain in 10 weeks. There is a branch of lead here, worth 10*l.* per fm., for half the length of the shaft. I have to state, that we have a great improvement of lead in both the 40 and 30 ends, driving west, since I wrote you last, producing rather more than a ton per fm. in each end, and likely, from appearance, to increase as we proceed. The weather is very hot and dry, so our top power is almost limited to our necessity; thus far, however, I am happy to say, we have been able both to pump the water, and discharge all our stuff with the water-wheel; and as the caunter has greatly increased our water underground in the 30 fm. level, I question whether it will be advisable to explore this lode (the caunter) in the 20 fm. level, for a month or two, by which time we may expect the surface water will increase our top power to do so.—J. Buzzo: July 14.

LANIVET CONSOLS.—In the 80 fm. level west, on the south part of the lode, the leader part is 18 in. wide, producing good stones of ore. In the 70 fm. level east, on the north part of the lode, the leader part is 2 ft. wide, saving work. In the winze, sinking under the 30 fm. level east, the leader part of the lode is 18 in. wide, producing some saving work. We have ordered our plungers, &c., and are cutting holes for bearers, and doing other necessary work, preparatory to sinking.—H. Williams: July 12.

LEWIS.—The lode in the 60 east is 2½ ft. wide, worth 3*l.* per fm. for tin—much more promising that it was last week; the lode in the 60 west is 2 ft. wide, composed of spar, mundic, peach, brent, and a small portion of tin. The 50 east is suspended, in order to put the men to raise at the back of the 50 fm. level against the winze that will be sunk below the 40 fm. level for a better ventilation; the lode in the 50 east, on south branch, is 18 in. wide, worth 10*l.* per fm. for tin. The lode in the 40 east is 2 ft. wide, worth 7*l.* per fm. for tin. We have erected a horse-whim shaft, tackle, &c., at Praed's shaft, and the men will commence sinking the same on Monday next. We have drawn this week from the tributers several good parcels of work from the back of the 60, east of Nutt shaft, and from the back of the 50 east and west of copper ore shaft, and east of tin shaft, and from the back of the 50 on south branch. I think our sampling for June will be a greater and better quantity than we have heretofore sampled in one month.—S. S. Noell: July 10.

MENDIP HILLS.—The appearance of the lode in the 38 fm. level, south of Stainsby's shaft, continues much the same as last reported, composed of flookan and soft spar, with a little lead at times; in the winze, sinking below this level, we are down about 7 fms. 4 ft., at which point the lode is about 3 ft. wide, composed principally of quartz and flookan, intermixed with limestone. In the slag department I have nothing particular to inform you this week. We continue to press forward as fast as possible with the water-course, and hope to see it completed in about three weeks from this time.—F. C. Harpur.

SOUTH TAMAR UNITED.—We have got through the timber and rubbish in the shaft, that retarded our progress in putting down the pitwork; we have now commenced cutting ground for bearers and cistern to fix the plunger-lift, which shall be done as expeditiously as possible. The men in the adit level are clearing and securing the same very satisfactorily.—B. Robins: July 13.

SOUTH WHEAL MARIA.—The cross-cut north of shaft is driven 12 fms., and is without any important alteration; and the cross-cut south of shaft is driven about 10 fms. We have lately discovered a lode, by costeaning about 20 fms. south of shaft, 2 ft. big, composed of gossan, mundic, &c.; and, from its underlay north, it would appear that there is about 2 fms. more to drive to intersect it in the 20 fm. level under adit. The shaft on north lode is sunk about 4 fms. from the surface; the lode here is about 2 ft. big, underlaying north 6 in. in a fm.—mundic, spots of yellow ore, and tin.—G. Francis.

SOUTH WHEAL TRELAWNEY.—Snell's engine-shaft is in course of sinking by 9 men—ground just the same as last mentioned, composed of white killas and prian, water a little quicker. On Sobey's lode the adit level is still driving—lode about 2 ft. wide, composed of gossan, brights, white killas, and prian heads. The cross-cut, west of Snell's engine-shaft, is still driving at the adit level. I hope next week we shall have the pleasure of saying we have communication through the adit.—W. Jenkin: July 12.

SILVER VALLEY.—At the engine-shaft, in the 50 fm. level cross-cut, we have driven 7 ft. north of the lode, and there is now a quantity of water issuing from the end, which we hope will be all drained to the bottom of the level as soon as the north branch, or branches, of the lode are cut through; we shall then, no doubt, progress more satisfactorily. At the silver mine, in the 30 fm. level, driving west, the lode is now about 16 in. wide; it has a very kindly appearance throughout, and the south part contains traces of silver. The lode in the 20 fm. level west is about 30 in. wide, and has varied but little in its composition since reported last, being a large proportion of mundic, a little flookan and quartz, and spots of lead occasionally; the lode in the stopes, in the back of this level, is 2½ ft. wide, producing a little saving work, and has a very promising appearance. At Oak shaft we have commenced operations; and, while the weather continues dry, we shall, as fast as possible, clear the shaft to the present bottom, and sink to communicate with the Wheal Brothers deep adit, and for which purpose we have also commenced rising against the shaft from the back of this level. We have this day sampled and offered for sale about 4½ tons of tin.—S. Richards: July 12.

UNITED HILLS.—In the 90 fm. level, east of Williams's shaft, the lode is 3 ft. wide, worth 8*l.* per fm.; in the 90, west of ditto, the lode is 3 ft. wide, worth 15*l.* per fm.; in the stopes, back of 90, west of Williams's, the lode is 2½ ft. wide, worth 26*l.* per fm. In the 80, east of Williams's, the lode is 3½ ft. wide, worth 16*l.* per fm.; in the 80, west of cross-cut, the lode is 2 ft. wide, worth 15*l.* per fm. In the 70, east of eastern shaft, the lode is 2 ft. wide, worth 8*l.* per fm. At Wheal Charles, in the 50, east of Gibson's shaft, the lode is 2½ ft. wide, poor. At Wheal Sparrow, in the 40, west of Turner's shaft, the lode is 2 ft. wide, worth 9*l.* per fm. In the 30, west of ditto, the lode is 3½ ft. wide, worth 9*l.* per fm. In the 20, west of ditto, the lode is 1 ft. wide, worth 3*l.* per fm. The 30 cross-cut south is driving to cut Stacey's lode; in the adit end, west of Turner's, the lode is small and unproductive. The boiler at William's is completed; the water is now about 6 fms. below the 80. The boiler will commence working to-morrow.—T. Trevenen; R. Williams: July 9.

TAVY CONSOLS.—The bottom end is looking very promising, there being a lode of mundic and good stones of ore, from 2 to 3 ft. wide; the other part of the lode is composed of capel, spar, and mundic, with stones of ore in places; I set 2 fms. to drive at 4*l.* The end in the 12 fm. level is much better than before; consequently, I think we shall soon get to a change of lode, which, for the present, is still disordered—set 3 fms., at 5*l.* 10s. The end on the lead lode north, is looking more promising than before, and producing some saving work. Set the old pitch in the back of the 12 fm. level at 6s. 8d. in 1*l.*, and the party dress their ore; the new pitch to the west of them was taken at 6s. in 1*l.*, and the party dress their ore. I also set a pitch on the lead lode in the back of the shallow adit, at 14s. in 1*l.* The shaftmen are busy in putting in pent house, &c., and hope to be ready to sink by Monday next. The masons have commenced the wheel-pit, and the carpenters are busy about the wheel; we are also progressing with the surface work as fast as possible; we are also progressing with the dressing department with all possible dispatch. We have now on the floors, including the tributers', nearly 40 tons of ore.—A. W. Martyn.

TRELEIGH CONSOLS.—In the 110 fm. level, west of Christoe's, the lode is 2 ft. wide, with stones of ore, and very promising. In the winze, below the 100 east, the lode is 2 ft. wide, worth about 10*l.* per fm.; the 100 cross-cut, north of Garden's, is driving towards the lode; we are clear from the elvans, and are driving in capels and spar. In the 90, west of Garden's, the lode is about 18 in. wide, more kindly, with good stones of ore. In the 80, east of ditto, the lode is 15 in. wide, no mineral to dress; in the winze, below the 80 west, the lode is 3 ft. wide, worth about 10*l.* per fm. In the 70, west of ditto, the lode is 1 ft. wide, but very little ore. In the 60, west of ditto, the lode is 3 ft. wide—spar and mundic, with stones of good ore. In the 70, west of Symons's, the lode is 4 ft. wide—capels, with rather more ore in the south part of the lode. In the 60, west of ditto, the lode is 15 in. wide, producing stones of ore only, not to save; in the adit east, on Wheal Parent lode, the lode is 2½ ft. wide, intermixed with killas, not much ore. Our object in driving west in the 110 from the cross-cut, is to prove this piece of lode, which is about 7 fms. to the cross-course, and also to drain the winze, sinking below the 100, in which we have a pretty large quantity of water, and at present more than pay for sinking. I also think the winze will come down through this piece, which we intend to drive into. We cannot ascertain this by the dial in the engine-shaft, in consequence of so much iron.—W. Symons: July 10.

WEST WHEAL JEWEL.—In the 80 fm. level, on Tolcarne tin lode, the lode is 1 ft. wide, worth 5*l.* per fm. In the 12 fm. level west, on same lode, the lode is 18 in. wide, worth 7*l.* per fm.; in the stopes east of Quarry shaft, in the bottom of this level, the lode is 3½ ft. wide, worth 20*l.* per fm.; in the stopes east of Quarry shaft, in the back of this level, the lode is 3 ft. wide, worth 15*l.* per fm. In the stopes east of Pryor's winze, on the same lode, the lode is 2½ ft. wide, worth 18*l.* per fm. In the 12 fm. level east of Rowe's winze, on the same lode, the lode is 9 in. wide, worth 4*l.* per fm. In the adit end west of Quarry shaft, on Tolcarne tin lode, the lode is 1 ft. wide, worth 10*l.* per fm.—R. Johns; T. Bray: July 12.

WEST WHEAL MARIA.—The lode in the eastern engine-shaft is about 4 ft. wide, the north part of which is producing good stones of ore; the lode in the western engine-shaft is about 2½ ft. wide, with spots of ore in places. In the 54 fm. level, east of this shaft, no lode taken down in the past week. In the cross-cut south, in this level, the ground is much the same for driving as it has been for some time past.—T. Rodda: July 13.

WHEAL ADAMS.—The shaftmen are still engaged in timbering the 50 fm. level, which work is being accomplished with every possible dispatch. Tonking's stopes, in the bottom of the 40, are worth about 9*l.* per fm.; we have commenced sinking a winze, on the middle branch, in this level—the lode in which is about 2 ft. wide, producing saving work; the end, on the western vein, is resumed driving. The lode in the 28 fm. level, extending south, is 3 ft. wide, consisting of friable quartz, and good stones of lead and antimony—produce, 12 cwts. 2 qrs. 14 lbs. of lead, 2 cwts. 1 qr. 7 lbs. of antimony, and 33 ozs. 10 dwts. 6 grs. of fine silver in 20 cwts. of the ore; the ground in the cross-cut, in the north end, continues much the same as last reported. A deficiency of air precluded the possibility of continuing to rise in the 18 fm. level; we have, therefore, set to stope the ends on tribute at 7*s.* in the 1*l.*; and immediately the ground is surveyed, and the corn removed from the field, we propose sinking a shaft to effect a communication.—J. Prince: July 12.

WHEAL ANDERTON.—The lode in the 60 fm. level, east of engine-shaft, is 4 feet wide, 18 in. is very good work, the tin of superior quality; the other part, I should think, will make at least 5 cwts. of black tin to every 100 (12 gallons) sacks; the lode in the west end in the 60 is not looking so good, a small slide having confused the ground; however, from the indications which present themselves, there is every prospect of its being productive ere long; the stopes in the back of the 60 fm. level, and above, are very good—four men, being as many as can be placed for the time, will break about 6 tons per month. I expect to complete the necessary pitwork to the 60 by Saturday, when we shall be in a better position to expedite the sinking of the engine-shaft, under the 60, which I shall have prosecuted with all possible dispatch by nine men. I have received the cash for the last lot of tin (154*l.*), and shall send off early next week another parcel of larger amount.—J. Carpenter: July 15.

WHEAL MARY ANN.—The lode in the 30 fm. level, south of Barrett's shaft, is 3 ft. wide, worth 18*l.* per fm. The lode in the 15 fm. level, south of Barrett's shaft, is 2 ft. wide, worth 10*l.* per fm. All the stopes are looking very well. Pollard's shaft is sunk 6½ fms. under the adit level.—P. Clymo, Jun.

WHEAL TRELAWNEY.—The lode in the 42 fm. level, north of Phillips's shaft, is 3 ft. wide, worth 20*l.* per fm.; the lode in the same level south is 2½ ft. wide, worth 16*l.* per fm. The lode in the 32 fm. level, north of Phillips's shaft, is 2 ft. wide, worth 10*l.* per fm.; the lode in the winze, under the 32 fm. level, north of Phillips's shaft, is 4 ft. wide, worth 25*l.* per fm. The winze, under the 22 fm. level, north of Phillips's shaft, is holed to the 32 fm. level. All the stopes are looking well. We are getting on very well cutting the plat in the 52 fm. level at Phillips's shaft. Trelawney shaft is sunk under the 22 fm. level 12½ fms. At Vivian's shaft there is nothing new since last report.—Peter Clymo, Jun.: July 13.

FOREIGN MINES.

ALTEN MINES.—*Mining Report from the 3d to the 22d June.—Raipas.*—The prospects of this mine continue favourable, and some exploratory workings at the surface have yielded fair returns of ore. Labouchere's and Carr's, although still fluctuating, are equally good, and we have every reason to expect that the quality has improved. The lode in the 10 fm. level has again assumed its regular north-east direction, and has, apparently, become more settled, although the returns are not increased. Preparations have been made for recommencing the stopes in shaft No. 2, but the great quantity of ice collected in this part of the mine still prevents our resuming these workings. We are now repairing the roads from the mine to Bossikop; and in the middle of next month we hope to return the ore on hand, for the purpose of forming the usual mixtures for the smelting-house.

United Mines.—An extensive land slip has, for a few days, put a stop to our operations; the whole of the side of the mountain for about 30 fms. long, and 20 fms. deep, has become loosened by the side of a small lode, and completely filled the whole of the old excavations; a part of the railroad has been crushed which will cost from $60 to $100 to repair, but this will be the extent of the inconvenience. The prospects are still good, and the stopes continue to make the usual returns.

Ryper's.—Our proceedings have still been impeded by the great influx of water in the workings on the new lode, but we hope this inconvenience will be but temporary. Another lode has now been discovered some fathoms further towards the south-east; it is small, but has yielded a small quantity of very superior ore.

Mancur's has experienced no further deterioration, and the present workings will pay the cost of the mine.

Michell's.—No improvement is as yet to be noted; the shallow adit is still poor, but the tributers are making some fair returns from other parts of the mine.

Cole's.—The thaw has still prevented us from resuming the workings on this lode; but we hope the unusually fine summer weather now set in, will enable us to do so in a short time.

Old Mine.—The tributers are making good returns of an improved quality.

Wilson's.—The tributers at this mine have also been successful, and have risen some very superior ore from a small vein, adjacent to the old workings; the deeper workings are still full of water, which prevents our resuming operations at a lower level.

Carl Johan's has greatly deteriorated—the produce of this lode hitherto has been but trifling: and the present falling off will not affect the general produce. We shall endeavour to stimulate the tributers, to make further trials on the lode, which, although at present small and poor, is still regular and promising.

At *Quænvig* and the *New Lodes*, some small returns of ore have been made, without any perceptible alteration in the prospects. The powder-house lode also yields some small but profitable returns.

Ore Dressing.—The machines are now in full work; and the progress made in returning the winter's stock is, as yet, highly satisfactory.—S. H. Phillips.

ROYAL SANTIAGO MINING COMPANY.

The annual general meeting of shareholders was held at the offices, Broad-street-buildings, on Wednesday, the 14th inst.

The Baron de Goldsmid in the chair.

Mr. Dockray (the secretary) read the advertisement convening the meeting, the minutes of the last meeting, which were confirmed, and the following directors' report:—

REPORT.

In the report made at the last meeting, the proprietors were informed that a slide and change of strata had somewhat suddenly and unexpectedly been encountered in the lode in St. Andrew, which changed the aspect of the affairs of the company. The raisings of ore have consequently been limited to the reserves in the mines, from which 899 tons have been extracted in the half-year, ending 28th February last; of this quantity 638 tons have been sold, and produced net 708*l.* 3s. 3d., and the remaining 261 tons, which were shipped in May by a vessel called the *Sarepta*, and daily expected to arrive at Swansea, and taken into account at the estimated net proceeds of 140*l.*, make, with the interest accrued on the capital lent on security and other items, as per annexed account, the total receipts 928*l.* 2s. 6d. The expenditure for the same period, including the law charges incurred in the Sanctuary Ground suit and the income tax, amounts to 871*l.* 6s. 5d.; leaving a profit of 57*l.* 16s. 1d. The directors have to acquaint the proprietors, that after having duly considered the reports of the managers and mine captains in the service of the company, they have resolved upon operations for the discovery of ore in three of the pertinencies of the greatest promise; and, as about 1605 tons of ore have been obtained from two of them at shallow levels, it justifies the expectation that at a greater depth the lodes may be found of a larger and more regular character. An engine-shaft was accordingly commenced in March last, which will be sunk to a proper depth, and, by cross-cuts, the ground which comprises the three mines will be thoroughly and economically developed. Good progress appears to be making with this work, but the time required for its execution will depend upon the character of the rock to be cut through. With respect to the lode in the St. Andrew, the level has not yet been extended through the unproductive strata into the change of formation at the west of this mine, and where it is expected the lode will again be found, and in this direction the company have a considerable extent of untried ground. The directors have come to the conclusion, that the interest of the proprietors would be best consulted by the operations now in progress for the discovery of the lode, and the development of the mines being carried out. All the materials—namely, pump-work and powerful steam machinery—being already on the mines, the additional expense will not be very considerable. It would have afforded the directors much satisfaction to have been enabled to report that the affairs of the company were in a position which would justify them in recommending a dividend out of the reserved profits; but they feel assured, the proprietors will see the expediency of maintaining the funds undiminished pending the appeal to Madrid respecting the Sanctuary suit, and until it is ascertained to what extent the capital of the company may be re-

quired for efficiently working the mines before referred to. The directors have to remind the proprietors, that at this period one director—namely, the Baron de Goldsmid—retires by rotation, and they earnestly recommend him for re-election; and Ald. Copeland, M.P., one of your auditors, also retires, but he is also eligible for re-election.

Abstract of Balances—30th June, 1847.

Money at interest at bankers and Bank of England	£43,629	7	5	
Ore per *Sarepta*	1,485	0	6	
Amount drawn by agent at the mines, and other items of expenditure to 30th April, for the current half-year's account, ending 31st August, 1847	2,644	9	11	
Steam machinery account	600	0	0	=£48,358 17 10
Working capital account, 31st August, 1846	46,846	11	0	
Unclaimed dividends	17	10	0	
Acceptance	160	0	0	
Amount due to sundries at date	759	0	9	
Profit and loss account (particulars as under), being profit for half-year ending 28th February, 1847	575	16	1	=£48,358 17 10

Particulars of Profit and Loss Account for the Half-year ending 28th February, 1847.

To expenditure in wages, carriage, export duties, miscellaneous expenses, law charges	£8401	2	5	
To income tax for the half-year	312	4	0	
To balance, being profit	575	16	1	=£9289 2 6
By net proceeds of 638 tons of ore	7085	3	3	
By estimated net proceeds of 261 ditto	1400	0	0	
By interest accrued on the unemployed capital, brokerage on insurances, discounts, &c.	803	19	3	=£9289 2 6

The CHAIRMAN then observed, that before proposing the adoption of the report, he should be happy to listen to any remarks, or give any information in his power, which might be required.

Mr. MICHAEL WILLIAMS enquired, when it was likely they should hear from Madrid, respecting the appeal from the Havana Court's decision respecting the Sanctuary ground.—The CHAIRMAN said, it was impossible to say; they hoped it would not be very long—and the directors, he could assure them, were using every exertion to induce the Spanish Government to hasten the decision. They, however, considered the mines well worthy of prosecution, entirely independent of the lawsuit, or the Sanctuary ground.—From the reply to a question from Mr. Snow, it appeared that the Cobre Company were in possession of the disputed ground, and were working it.

The report and accounts were then unanimously adopted, and ordered to be entered on the minutes, printed, and circulated among the proprietors.—Baron de Goldsmid having gone out of office by rotation, was re-elected; Alderman Copeland was re-elected as an auditor; and, a vote of thanks having been unanimously recorded to the chairman and directors, the meeting separated.

REAL DEL MONTE MINING COMPANY.

From the statement of accounts, presented at the last annual general meeting, reported in the *Mining Journal* of the 19th June, it appears that the entire amount of capital raised by the issue of shares from 1824 to 1840, both inclusive, was 844,294*l.*; there was obtained on loan in 1827, 46,820*l.*; and in 1828, 88,750*l.*—thus making the total amount received 979,864*l.*; out of this sum there has been paid as interest 263,398*l.* 5s. 7d.; there is a balance due from Fry and Chapman's, of 2347*l.* 9s. 1d.; and there is in hand in stock, bills, and cash, 15,425*l.* 18s. 10d. The following is the directors' report, which was presented to the meeting:—"In the report of the 16th March last, an outline was given of the progress of operations at the mines, and of the general results for 1846; and the proprietors were referred for fuller information to the report and accounts, which would be submitted at the annual meeting in June, and which are now submitted accordingly. From these it will be seen, that the expenditure in 1846 amounted to $714,860 2½r., and the returns to $764,694 3½r.—showing a profit of $49,834 1½r. This amount is the cash profit; but, as the stores paid for in the year exceed those used by the sum of $16,257 7½r., the actual profit amounts to $66,092 0½r. A suspension, which became necessary, of the works in San Enrique, on the Biscaina vein, for the purpose of drainage, in the present year, and some minor accidents, occasioned a diminution of nearly $26,000 in this profit. The favourable appearances of the mine were such as to justify the expectation that this diminution would speedily be compensated, when a sudden, though it is to be hoped, a temporary, failure took place in that part of this mine, which afforded the most immediate supply of smelting ore, in consequence of a flookan, which early in April was found to intersect the lode. There is reason, however, to believe that the check will be but transient; for Capt. Rabling says, in his report, dated 24th April, that "as the Biscaina continues its underlay, with small branches of good ore, we may expect it will improve after passing through the flookan." The deep levels from Dolores shaft, on the Santa Brigida vein, are opening some productive ground. "The vein is 1½ vara wide, of a promising character, and likely to turn out a large quantity of azogue ore, with occasional bunches of smelting ore." The March report noticed that some ore ground had been met with in driving upon the Tapona vein, which is nearly parallel to the Biscaina. This discovery was made by means of a cross-cut from Dolores, at only 157 varas from the surface, and it is satisfactory to learn that the ore continues as the level advances. North of the Biscaina vein, on that of Santa Brigida, the next productive mine is that of Sacramento, which continues to yield moderate returns, principally of azogue ore. The workings of La Luz, still further north, have been less productive than in the previous year, in consequence of the rising of the water in the rainy season, when the power of the steam-engines at Acosta was found inadequate to drain this portion of the mines. Since the cessation of the rains the working has proceeded regularly, and the produce of ore has been considerable, though variable. In this mine the Aviadero, or 130 vara level, driving south from San Pedro shaft (Acosta), has lately improved, and is now productive of ore, which is an encouraging feature, as the level is the deepest in the mine. The mine of Acosta, which is contiguous to La Luz, has yielded very little ore during the past year, but again presents improved appearances. The deepest level, called San Enrique, 156 varas from surface, is driving west of the shaft on a vein three feet wide, with spots of ore, and east also on a large promising vein. The Aviadero level (east) is on a vein 4 ft. wide, half of which is azogue ore of 8 mcs. per monton—these works are exploring new ground. The Guadalupe, or 40 vara level east, on a branch 1 ft. wide, containing a little ore, is driving for the purpose of making an interesting trial of the vein in a part where a rich bunch of ore was a few years ago found on the western side, and which disappeared at the junction with the north and south lode, where the vein appears to be disordered. A discovery in this place would be highly important, as the Acosta ore is generally rich. The operations, however, at Acosta, as well as at La Luz, have been greatly interrupted by the quantity of water flowing in at the deep levels. From this cause the engine-shaft of San Pedro has as yet only attained a depth of 10 varas below the San Enrique level, or 166 varas from the surface. It became obvious, therefore, that either a more powerful engine must be supplied, or a stop put to the continuation of the working of the whole of this part of the concern below the level of the Aviadero. The directors decided upon the first alternative, and ordered an 85-inch cylinder engine, as mentioned in the March report; they could not, however, contemplate the demand for another engine, larger and more costly than any previously sent, without serious consideration; but, having duly weighed all the circumstances with reference to the drainage of the mines, and the very encouraging appearance of the latter in some of the deepest workings, they deemed it the most prudent course to comply with the requisition so urgently pressed upon them by their representative in Mexico. In the other mines of the company no new features of importance have occurred. In respect to the processes for reducing the ore, the directors are happy to report that the results of the past year bear a favourable comparison with those of the years preceding. The Hacienda of Regla comprises two departments—one for smelting, and the other for amalgamation—in both of which a manifest improvement has been effected. In that for smelting the rich ores, the cost averaged during the year $12 per carga; being less by 5 reals per carga than in 1845, and showing a saving on 5439 cargas of $3400; and at the same time a more perfect extraction of the silver was obtained. The improvement in the patio amalgamation is, in a great measure, due to the modifications introduced by Mr. Bowring. The loss of quicksilver averaged 12 7-10ths oz. per marc of silver, and the loss of silver 16 6-10ths per cent., and 11 6-10ths per cent., with the produce of the *polvillos* included. The difference or saving in the cost of reduction, as compared with the year 1845, is estimated at nearly $24,000—recent results are still more favourable. At Sanchez Hacienda the barrel process has given uniformly good results, and has been found the more beneficial from the circumstance of the ore reduced being such as cannot be made to yield its silver by the patio process. The new works at Sanchez, comprising in all 32 barrels, are likely to be soon completed: their completion had, indeed, been expected by the directors some time since; but the explanation given by Mr. W. Rule has been that the artizans, whose number is limited, have been frequently engaged upon other works of still more immediate necessity, which were required to meet the casualties incident to all mining concerns where much machinery is employed. Another unavoidable cause of delay has been the non-arrival of machinery ordered from England, and detained in consequence of the war in Mexico, and the recent blockade of the Mexican ports. These events have in various ways occasioned loss and inconvenience to the company by interfering with the usual means of communication, and the supplies of money, stores, and other necessaries for carrying on the operations at the mines. Very little can be added to the statement in the March report, respecting the new process of reduction introduced by Mr. Spangenberg; certain repairs were found necessary to the apparatus, which have caused a temporary suspension of the operations, but these being now completed, the reduction will proceed as before; meanwhile, Mr. Spangenberg, having gone to Zacatecas, is there engaged in making experiments upon the ores of that district. All these different methods of reduction may probably be advantageously employed, because the ores consist of various classes, each of which seems to require a peculiar kind of treatment for the extraction of the silver. Experience has already done much towards pointing out the most beneficial classification of the ores, with reference to the modes of reduction, and further improvement may be confidently anticipated."

MINING COMPANY OF IRELAND.

The stated half-yearly meeting of this company was held at the company's offices, Lower Ormond-quay, Dublin, on Thursday, the 1st inst.

Sir ROBERT KANE in the chair.

The SECRETARY (Mr. Purdy), having read the advertisement convening the meeting, proceeded to read the following report, from the board of directors, of the company's operations for the past half-year:—

REPORT.

Various concurrent circumstances have tended to curtail your profits in the half-year; the net amount thereof is 2387*l.* 17s. 9d., exclusive of 1534*l.* 8s. 3d. applied in improvements, with a view to future advantage; and there has been expended in opening Lisnacon Colliery, 115*l.* 12s. 5d. The injurious circumstances which have produced this result have been adverted to in previous reports, more especially those for 1843 and 1844, and will be further treated of in the following remarks on the several concerns—

The Knockmahon Copper Mines, County Waterford.—The state of the relations between the proprietor of a considerable part of these mines and the company, as tenants, forms the only obstacle to the more extensive, and consequently the more profitable, working thereof. In the past half-year there has been expended in labour at these mines 11,802*l.* 17s. 11d., by which 2000 tons of copper ore has been raised, value 11,695*l.* 10s. 1d. The company has, therefore sustained, loss by these works, amounting to 107*l.* 17s. 10d., exclusive of interest upon 50,000*l.*, expended in opening the mines and erecting machinery thereon; whilst, in the same period, the proprietors have received rent amounting to 892*l.* 8s. 4d. for same. This subject is so fully before the committee in the correspondence opened to inspection, that it is not considered necessary on the present occasion to state more than that the parties immediately interested as proprietors are now desirous to co-operate with the company by effecting an arrangement for mutual advantage, provided the present state of the law shall be found to admit of it; and, until this question shall be decided, it is not considered advisable to alter the existing system of working the mines by curtailing the expenditure in searches and improvements. As regards the defective state of the law which occasioned the interruption of the company's prosperity at these mines, no remedy has been proposed by Government to Parliament; but your board has been assured that special consideration will be given by Government to this question, as well as to the erroneous system of rating mines for the poor in Ireland, so contrary to the rule in Cornwall, where the actual annual rent paid for the mines is the amount rated for, and the rates are paid by the landlords exclusively; whereas, at the company's mines, the valuators have fixed imaginary values, grounded upon the gross profits from capital employed in erecting machinery, and working the mines. As an instance of the injurious consequence of this erroneous system, the Knockmahon mines were valued for poor rates at 10,000*l.*—and upon notice of appeal, the valuation was reduced to 5000*l.*; whilst the value, according to the English practice, would not exceed 2000*l.*, no part of which rates would have been payable by the company. Another source of expense at these mines has been the necessity of distributing food at moderate prices to the families of the men employed; and, although for this purpose a cargo of Indian corn was imported, loss to a considerable amount has been sustained by the company. How long the mining interests of the country may have to contend with these difficulties cannot now be conjectured; but, until effective legal remedies shall be provided, your board considers it to be a permanent duty to protect your funds from further reduction. The mines are now opened upon a very extensive scale, upwards of a mile in length. At Knockmahon Mine the engine-shaft has been sunk 180 fms., and the drifts are in progress at several levels, easterly under the ocean, and westerly inland. In Kilduanne the engine-shaft is driven 110 fms., and drifts are in like manner in constant progress; and, in Ballinasisla Mine, the shaft is sunk 80 fms., with similar levels in progress, whilst searches are continued at the surface in advance of the regular workings. In Bonmahon Mine, also, the level commenced at the cliff has been continued without intermission. In the past half-year there has been erected an additional water-wheel with machinery, and inclined plane with railway, for removing the halvans (coarse ores), to the stamps, by which considerable saving in expense will be effected. From what has been stated, it must appear manifest, that from the great extent of ground opened, its productiveness heretofore, the amount of water-power permanently secured, the powerful machinery erected, and the admirable arrangements made for pulverising and washing the ore, those mines must, under ordinary circumstances, become at least as remunerative as they were before the unfortunate interruption of the arrangement which made them so heretofore.

The Slievardagh Collieries, County Tipperary.—At the Slievardagh Collieries, the company's only difficulty consists in want of demand for small coal or culm, usually sold in large quantities annually, for agricultural purposes. The present accumulation of stock is estimated at 50,000 tons, although the workmen have been limited to half time for several months past; and it is not now expected that the the farmers will resume, until after harvest, those preparations which require culm for applying lime to the land as manure. The collieries are in a position admitting extension of production to meet any demand that can arise for many years. In the Glangoole and Lickfinn properties, the level so long in progress for unwatering the coal has been completed, and a considerable breadth of good coal and culm has been thereby unwatered, and can now be worked with advantage, a large proportion of the produce being coal of inferior quality, for which there is good demand. On the Coolquill estate a deep level has been commenced, under arrangement with the proprietors for abated rent. At Earl's-hill Colliery, the pit for working has been sunk 78 yards, the estimated depth of the coal at that point being 80 yards; and the engine-pit for unwatering the field has been sunk 36 yards, of 116 yards, the estimated depth to be sunk to effect the object. For working the Earl's-hill Colliery a powerful steam-engine can be spared from another colliery in the district, thus rendering unnecessary the purchase of an engine for this extensive colliery, supposed to contain a large proportion of coal now in good demand. As regards the accumulated stock of culm, hopes are entertained that a good harvest will induce agriculturists to resume their customary rotation of crops, or adopt an improved system of tillage, which will ensure an extensive demand for coal, in which case the collieries are, in their present state, capable of yielding extensive profit to the company.

Lisnacon Colliery, County Cork.—The level has been driven 495 yards, exclusive of 500 yards open cast; and, although distant 500 yards from the point at which the coal was found, and towards which the level was in progress, a thin seam of culm has already been cut in the level, which leads to the expectation that a workable seam may be found sooner than was expected.

Luganure Lead Mines, County Wicklow.—It will be observed, in the abstract of accounts, that the produce of Luganure Mines has not only covered the expense incurred by driving the deep levels in progress, to cross, and thus prove at great depth the numerous veins discovered, but has also yielded some profit in addition to affording profitable employment for your smelting and rolling mill department.

Ballycorus Lead-Works, County Dublin.—The returns from the company's lead-works are considered to be satisfactory, the limited amount of work required to be done being duly considered. It is expected that the final decree for sales of Lord Audley's estates will be made early next term, if the debts charged thereon, including the company's claim, 13,473*l.* 10s. 4d., with interest and costs, shall not be paid in the interim. The company is not, however, the petitioning creditor, and has not charge of the decree. The company's present stock of mineral produce is valued at 28,975*l.* 12s. 9d.; amount of cash, bills, good debts, and mining materials not in use, 25,489*l.* 0s. 2d.; mines, farms, and mill sites, 136,695*l.* 1s. 11d.; and deducting from the aggregate of these items the amount of unclaimed dividends, rents, and other debts of the company, 12,398*l.* 19s. 5d.; the assets of the company amount to 181,760*l.* 16s. 6d.

Referring to the audited abstract of the accounts presented herewith, and having regard to the fact that the amount of profit realised consists principally of an increase of the stock of culm not at present saleable, your board cannot recommend that a dividend be declared on the present occasion, being strongly of opinion that the interests of the company will be materially promoted, and public confidence best preserved, by maintaining perfect independence in managing the monetary transactions of the company.

Mr. R. L. GUINNESS moved the adoption of the report: in doing so, he said they were met under very altered circumstances, but not, as occurred to him, and he hoped to the meeting, discouraging circumstances—(hear)—for their capital was safe, and they had a surplus property of from 40,000*l.* to 50,000*l.* The reason the directors could not venture upon proposing a dividend was owing to the peculiarly embarrassed state of the country, which stopped all demand for culm, the result of which was that they had then no less than 50,000 tons on hands; however, after harvest they hoped that there would be an increased demand, a demand even beyond that of former years. He (Mr. G.) was happy to be able to state, for the information of the proprietors, that their works were all in a very efficient state, and ready to embrace every opportunity of an extension of their trade. There was an unusual circumstance noticed in their report which he could not but refer to—viz.: that their principal mines produced a loss of upwards of 100*l.*, instead of being as formerly very profitable. Now, this was owing to the manner in which they had been dealt with by Capt. Bernal Osborne, the proprietor of the fee; he hoped, however, that when that gentleman saw what had been the result of his pressure upon them, that he would, on reflection, come to the conclusion, that it was more for the interest of all parties that he should enter into a fair arrangement, which would enable them to have a fair return for their labour. He (Mr. G.) fully expected that a settlement would be come to, and also that the question of poor rates, as affected that description of property, would be brought forward in Parliament, so as to place them on the same footing with similar companies in England; in fact, that they should not be charged poor rates upon imaginary profits. Although they were unable to declare a dividend, he was glad to have it in his power to say, that they had within the past half-year given a great deal of employment, and sold a large quantity of food at very cheap prices, which prevented their having to raise the wages of their workmen, as they should otherwise have done; and, during the entire season of scarcity and distress, he was glad to find there was nothing in the way of insubordination to complain of. Although the directors might have declared a small dividend from their rest, he thought they were more prudent in not doing so. Under these circumstances the proprietors would, he was sure, approve of their policy, and adopt their report.—Mr. GRAY seconded the motion.

A PROPRIETOR wished to know, if there was any legislative measure about to be introduced on the subject of mines?—The SECRETARY stated in reply that the matter would be brought before Parliament as soon as possible, as appeared by the report.

Mr. GIBBONS said he did not rise to move an amendment, but to mention that he thought their report and statement of accounts should be more explanatory. He would also give it as his opinion, that the directors should have given some dividend, no matter how small; for their not doing so would be very injurious to their proprietary, and particularly to those obliged to sell out. He (Mr. Gibbons) would have suggested a dividend of 5 per cent., and also that Capt. Osborne should be called on to act fairly by them; for it was plain that if he did not do so, he would lose his interest in their works, as they had lost their interest from his conduct during the past half-year—it was impossible to suppose that they would lose by a concern to put money in his pocket. As he (Mr. Gibbons) said, he thought there ought to be a dividend, which could be given by raising money upon the stock they had in hands.—The CHAIRMAN wished to say, that the directors found that money could not be raised, owing to the impoverished state of the country, without paying a most enormous interest for it, and that they considered they were consulting their interests better by leaving them without any dividend for the past half-year.

Mr. GIBBONS observed that he did not see in the report any proposition from the directors as to the reduction of their salaries, or of the salaries of their officers.

A PROPRIETOR observed that they had 12½ per cent. that day year, 7 per cent. that day six months, and nothing that day; and that the reason assigned for not giving a dividend—the distress in the country—was the very reason they should give one, because there were many shareholders who would want the money badly, although he admitted, when he looked round the room, he saw a great deal of wealth. He had intended to have moved that a dividend of 5 per cent. be declared, but he would not do so, hoping that the directors would, at their next meeting, make up for their present disappointment.

Mr. PERRY would always object to give a dividend when the half-year's profits did not sanction it, and they did not on that occasion, for they only amounted to 2373*l.* He (Mr. Perry), would never sanction such a system, as it was bad in principle. As a director, he was always opposed to the large dividends that were declared, of 12½ or 15 per cent.; he was opposed to that in principle also, for he preferred creating a good rest, which would enable the directors to meet such an emergency with a small dividend, without resorting to a loan.—The report was then adopted.

Messrs. T. Berry, J. Ennis, and W. Hopkins, were appointed auditors.—The meeting then separated.—*Irish Railway Gazette.*

WHEAL ARVOSE.—A meeting of adventurers was held at the mine, on Monday, the 5th inst., when the accounts—showing balance in favour of the mine of 27*l.* 12s. 2d.—were examined and passed. It was resolved, that the mine be resumed; that a call of 10s. per share be made, and immediate steps taken for recovering arrears; the agent's salary to be 22s. per month, for superintending working operations; and a committee's secretary be appointed at 21s. per month.

WHEAL COLLIER.—A general meeting of adventurers was held at the Guildhall, Tavistock, on Tuesday, July 6,—JOHN PHILLIPS, Esq., in the chair.—The accounts having been examined, were found correct, and a call of 5s. per share made, for the further prosecution of the mine. The following shares were forfeited to the company:—J. Chimmo, 10; J. Mayjor, 2; Sarah Creber, 1; William Jenkins, 4; Sarah Ashwick, 10; and William Criper, 3. Each of the parties whose shares have been forfeited, are to be sued at law, through a creditor of the company, for his or her arrears. The following report from the manager, Mr. John Paull, was read to the meeting:—"During the last three months, our progress has been rather slow; nevertheless, the mine, has shown several indications of increasing value, particularly during the last month. In extending the Huckworthy adit west, a change of ground took place, and we almost immediately afterwards discovered much more copper ore, of good quality, in the lode; indeed, great rocks of orey stuff have been broken, and may be seen at the mine; and though it is not a solid course of ore, yet the character of the lode is such as to indicate our near approach to something very good. We are saving the lode, and hope soon to have a small parcel to dress for market."

GREAT HEWAS CONSOLS.—At a two-monthly meeting, held on the mine, on Tuesday, the 22d ult., the accounts were examined and passed; from which it appeared, that the labour cost for wages, carriage, &c., was 459*l.* 13s. 4d.; merchants' bills, 702*l.* 3s. 1d.; purchase of engine, 1050*l.*—making a total expenditure of 2211*l.* 16s. 5d.—A call of 7*l.* 10s. per share was made, which, with the 5*l.* call, in January last, makes 12*l.* 10s. per share to this time.—The following letter, from Mr. R. Pearce, the purser, was read to the meeting:—"The agent's report was naturally a very long one, as it embraced an account of all the proceedings from the commencement, showing the state in which the mine had been left by our predecessors 25 years ago; the damage done by the parties who had been continuously working above the adit level up to the time of our taking possession; the work done by ourselves in clearing the deep adit effectually, for more than 400 fms., and the shallow adit from its tail up to the engine-shaft itself for 150 fms.; timbering and putting in good repair Stanley's, Wearne's, Pool's, eastern, Strawberry, Northey's, corner, and engine-shafts, with Vivian's in progress; the engine and corner shafts cased and divided down to the adit level, with everything ready for the plunger-head in the engine-shaft. A new shaft, sunk in a distant part of the sett, on a very productive iron lode; a substantial engine-house with counting-house, with material room attached; carpenters' shop and smithy erected; the boiler-house in hand, shears, capstan, &c., in place; an excellent 66-in. engine, with three boilers, four pairs of water-stamps, with a horse-whim, and all necessary smiths' tools and materials, with crab and other winches, whim and tackle ropes, &c., &c., purchased. It is expected, that barring accidents, the engine will be at work, and the water forked to the 36 fathom level, before the end of October; that by cross-cutting from Northey to Strawberry shaft, to intersect Hewas and other lodes; cross-cutting from corner shaft; clearing up the eastern shaft, and cross-cutting from thence; sinking Strawberry and Vivian's shafts, on the course of the lode, which is known to be in good tin ground, we shall employ at least 60 men on tribute very speedily; to do which, we must, in the meanwhile, purchase 50 fms. of pitwork, with six horse-whims, &c., &c.—the prospects in every respect warranting a spirited prosecution by the adventurers."

GREAT ROUGH TOR CONSOLS.—A meeting of shareholders was held at the offices, Threadneedle-street, on Monday, the 12th. inst.,—W. A. THOMAS, Esq., in the chair.—The CHAIRMAN explained the object of the meeting, being that of passing the accounts for the past two months, and making a call to meet that expenditure, as well as the future operations. He stated that the engine-house, buildings, and other necessary erections on the sett, were progressing in a most expeditious and satisfactory manner; and he had no doubt that, at the next meeting, the captain's report would be of a far more pleasing and gratifying character.—The accounts having been examined and passed, it was resolved, that a call of 3*l.* per share be now made, to be paid on or before August 5.

KIRKCUDBRIGHTSHIRE.—At a two-monthly meeting of adventurers, on the 10th inst., the accounts, which were examined and passed, showed balance in favour at last meeting, 44*l.* 6s. 8d.; call, made May 7th, 413*l.* 10s.; lead ores sold, 558*l.* 8s. 1d.=1016*l.* 4s. 9d.—By costs for May and June, 1335*l.* 18s. 7d.: leaving a balance against the mine of 319*l.* 13s. 10d.—The following report of Capt. Buzzo was read to the meeting:—"At bottom of Stewart's shaft—viz.: 40 fm. level—we have cut ground necessary for the waggon road, to hang a tackle and cistern plot, fixed a 10 fm. drawing lift, put in the railroad, and are now in course of fixing a penthouse to resume sinking this shaft. From the character of the ground here, we expect to see this shaft sunk to the 50 fm. level in about 10 to 12 weeks. The 40 fm. level has been driven west 8 fms. 3 ft. in a very promising lode, though not rich, worth now 5*l.* to 6*l.* per fm.—there are objects of great promise before us in this end, according to what we have seen going down in sole of the 30 fm. level, the junction of the caunter with the main lode, some 15 fms. before the end, in particular. The 30 fm. level has been driven west 34 fms. 4 ft., principally in good lead ground; this end is poor at present, and we expect, from the dip of our ore ground in the level above, that we have some 4 or 5 fathoms more to drive, before we take the run of ore ground gone down in the sole of the 20 fm. level. The 30 fm. level east has been driven 30 fms. from shaft, the last 20 of which is poor; and, for other reasons, we have thought best to suspend this awhile; this level, eastward on the caunter, has been driven 13 fms. 2 ft. 6 in., the first 7 or 8 fms. from the main lode in good lead ground, but the remainder rather poor; the men driving this end are just now removed to sink a winze from the 30 fm. level to the 40 east of shaft. (It should be stated here that our miners, during the past month or six weeks, have been labouring under considerable disadvantage for want of proper ventilation; this is now greatly remedied by the opening of an air shaft from surface to the 30 fm. level, and the above winze is set going to open the same communication to the bottom of the mine.) The 20 fm. level has been driven east from shaft 36 fms., the greater part of which in a poor lode—this end is idle; the same level, west of shaft, is 34 fms., the last 10 fms. through a good lode, worth from 10*l.* to 11*l.* per fm.; the lode in the end is 3 ft. wide, worth about 6*l.* per fm. We have a rise in back of the 30 fm. level, 12 fms. behind this end, and expect it will be holed either to-day, or on Monday next, to the 20 fm. level—this will both ventilate these ends, and give further facilities to explore the ore ground in this part of the mine. Having, therefore, got the mine better ventilated on the one hand, and a further extent of ore ground laid open on the other, we calculate we shall now be able to increase our returns—should hope to raise from 35 to 40 tons in the present month; but after the crusher is erected (expected to be delivered on the mines in five or six weeks), we hope to see a greater increase, say 50 tons per month, beside effecting a saving of 14s. to 15s. per ton on the dressing cost."

WHEAL CONCORD.—A meeting of adventurers was held at the mine, on Monday, the 5th inst., when it was resolved, that the engine, mine, and materials be sold, either together or separately, for the purpose of discharging the liabilities due by the mine.

GREAT WHEAL MARTHA.—A correspondent has favoured us with the following report on this mine by Capt. James Seccombe, of the Marke Valley:—*Great Wheal Martha Mine, July* 6.—At the western part of this mine an engine-shaft has been sunk to the depth of 90 fms. below the adit, 80 fms. of which was sunk on the course, or underlay, of the lode. The adit has been driven west of this shaft 25 fms. on the course of this lode, which is from 2 ft. to 4 ft. wide, composed of gossan, capel, and mundic, with a small quantity of copper ore—the indications in the end are not so promising as they were near the shaft; the adit has been driven east 12 fms., the lode in this direction is from 4 ft. to 5 ft. wide, and much of the same character. The 10 fm. level has been driven west 27 fms., and the lode is from 2 to 3 ft. wide, containing capel, quartz, mundic, with a little copper ore; this level has been driven east 43 fms., the lode varying in size from 2 to 6 ft. wide, much the same character as west. The 20 fm. level has been driven west about 50 fms., the lode at this depth was found to be in two parts, being divided by a portion of the strata, and composed of capel, quartz, mundic, and gossan, with a small quantity of ore intermixed; this level has been driven east 28 fms. by the side of the lode, which is cut through various places and found to be from 10 to 12 ft. wide, the greater portion capel and mundic. The 30 fm. level has been driven west 13 fms. on the south part of the lode, which is about 3 ft. wide, chiefly capel and mundic; a cross-cut has been driven to intersect the north part, which is found to be 6 ft. wide, composed of capel, mundic, and ore; some part of the lode has been found sufficiently productive to pay for working. The 40 fm. level has been driven west 96 fms.; the lode at this level continues to be in two parts, and has yielded about 300 tons of copper ore, but is at present unproductive, being composed of capel, mundic, &c., much of the same character as in the level above; this level has been driven east 30 fms., and the lode is from 12 to 14 ft. wide, composed of capel, mundic, and quartz, intermixed with copper ore near the shaft, some part of the lode was found sufficiently productive to pay for stoping. The 50 fm. level has been driven west 43 fms., the lode is from 6 to 9 ft. wide, composed of capel, mundic, and quartz, with copper ore, intermixed; some part of this lode, near the shaft, has been broken away for ore; this level has been driven east 30 fms.; the lode is from 2 to 8 ft. wide, composed of capel, mundic, quartz, and copper ore, which has been found very productive near the shaft. The 60 fm. level has been driven west about 38 fms. the lode is 7 ft. wide, composed of capel, mundic, quartz, and copper ore; the lode in this end, and also the 50 fms. over, is more promising for ore than any of the levels above, and deserve a further trial being given; this level has been driven east 22 fms.; the lode is from 2 to 5 ft. wide, the greater portion capel, with a small quantity of ore intermixed near the shaft; the workings below this are full of water, which prevented my seeing anything of the lode below this level. 320 fms. east of this a new engine-shaft has been sunk to the depth of 58 fms. below the surface; at the bottom of this shaft a cross-cut is driven towards the lode 19 fms., a branch is intersected about 8 in. wide, composed of capel, mundic, and quartz, with spots of ore—they are daily in expectation of intersecting the lode. In driving the adit to this shaft it passed through the lode, which is from 2½ to 3 ft. wide; there is about 20 fms. driven west on its course, which presents a kindly appearance throughout. The 10 and 20 fm. levels have been driven under this from Thomas's shaft, which is 30 fms. further east—I was prevented from seeing the lode in these levels, this part of the mine being full of water. In consequence of a great part of the old mine being filled with water, and all the working on the course of the lode below the adit in the new mine, I am prevented from giving you a report on what are the most important parts of this concern; so far as I have been able to see the lode in the different levels, my opinion is that productive ground will be met with when the lode is laid open to a greater depth, and would recommend, that the sinking of the new engine-shaft be resumed as soon as possible, and sunk to a 60 fm. level, at which depth I believe good returns would be made.

COST-BOOK SYSTEM—OPTION TO RESIGN SHARES.

SIR,—We should be much obliged, if any of your correspondents, who may be well acquainted with the subject, would answer the following question, both for our guidance, and the satisfaction of our clients.

Providing that any adventurer, or shareholder, in any mine is dissatisfied with the administration of the affairs of the mine, and he, after having given due notice to the purser and secretary in writing, that he wishes to resign his shares—those shares having had *all* calls on them paid up—is he, in any way, subject to future liability; or can he be called upon, at any future time, for any debts incurred on account of the mine, prior, or succeeding to, his resignation of the shares?—OLIVER AND CO.: *Coggeshall, Essex, July* 14.

[In all agreements to conduct a mine on the Cost-book System, it is expressly provided, that any adventurer or shareholder is at liberty to resign his shares, on paying all calls due thereon—his responsibility being then limited to a share of existing liabilities; and he is entitled to his fair and equitable proportion of the estimated value of the assets of the company. He may, on such resignation, require the purser to cancel his name in the cost-book, as relating to such shares, and he is then certainly not liable for any debts *subsequently* incurred by the company.]

GREAT WHEAL MARTHA.—In another column of this day's Journal will be found a report on this mine by Capt. James Seccombe. It is unfortunate, that on that gentleman's visit to inspect the mine, he should have found the most important levels filled with water, which prevented him from giving his opinion on what were the most important parts of this concern. It is somewhat satisfactory, however, that so far as he has been able to see the lode in the different levels, he should be of opinion that productive ground will be met with, when the lode is laid open to a greater depth. We have heard so many conflicting accounts of the prospects of this undertaking, that it is pleasing to receive almost anything of an encouraging nature, when our authority can be relied upon. The abilities and success of Capt. Seccombe, as a miner, are, no doubt, so well known to many of our readers, that it is at present unnecessary for us to say anything in their favour; and we hope the directors of the Wheal Martha will not lose sight of the suggestions contained in his report, although it was not obtained by their directions. We refer particularly to the 50 and 60 fm. levels in the old mine, which Capt. Seccombe considers deserve a further trial being given; and to the conclusion of his report, where he says, and would recommend, "that the sinking of the new engine-shaft be resumed as soon as possible, and sunk to a 60 fm. level (now at 53), at which depth, I believe, good returns would be made." We hope Capt. Seccombe will be prevailed upon to inspect the levels in the new mine, and also those below the 60 in the old, whenever the state of water will permit.

THE CYCLOPS WORKS, SHEFFIELD.—His Imperial Highness the Grand Duke Constantine of Russia, during his late tour, paid a visit to the extensive works of Messrs. Johnson, Cammell, and Co., situated on the Sheffield branch of the Midland Railway, and known as the Cyclops Works, the celebrity of which is well known in Russia, and which his Imperial Highness was particularly desirous of visiting. In fact, the reputation of this eminent house, in the Russian dominions, may be judged of from the circumstance that the springs of the imperial carriage of Nicholas were manufactured at this establishment, and that the proprietors are large contractors for the Petersburgh and Moscow Railway. At these works, the Grand Duke and his attendants spent two hours, his Imperial Highness, and those more immediately connected with his suite, repeatedly expressing their high gratification with the several processes of manufacture exhibited to their inspection, and the general arrangements of the works, especially as it regarded the comfort of the workmen. A superb lunch was prepared by the proprietors; but the august visitors, from the limited time at their command, were not able to do that justice to the liberality of their hosts which they could have desired. The Grand Duke expressed, in the most cordial manner, to Messrs. Johnson, Cammell, and Co., his acknowledgments for the attention shown him and his suite on the occasion. Throughout, the visit of his Imperial Highness was characterised by genuine affability and frankness, combined with the dignity becoming his exalted rank.

WHEAL TRESCALL TIN MINE.—This sett is situate in the parish of Luxillion, in the county of Cornwall, seven miles from St. Austell, and four from Bodmin, comprising the Trescall estate, and the adjoining moors. The low grounds have been from time immemorial streamed for tin, and there are known to be 16 or 17 lodes and branches running through the estate, containing the finest specimens of tin, some stones weighing from 100 lbs. to 150 lbs.; one lode upon which a shaft was sunk was 14 ft. big, and yielded the best of tin; and some specimens which we have inspected at the office, are certainly sufficiently tempting to induce the outlay of capital for their development. The strata is decomposed granite; and from want of proper timbering, the shafts and levels have in a great measure run together, the horse whim employed not being sufficient to keep the water. It is calculated by Mr. John Webb, the mining engineer, that with a capital of 4000*l.*, a 40-inch cylinder engine may be completed, the shaft sunk to 20 fms. deep, 24 heads of steam stamps erected, of sufficient power to double that number if required, and the whim shafts sunk, and levels and cross-cuts driven to a sufficient extent to raise tin to the amount of 900*l.* a month, the cost being 500*l.*, thus realising a profit of 400*l.* per month to the adventurers. From the reports of agents, who have inspected these works, it appears the tin is most abundant, and of the very first description, and the mine holds out a prospect of being superior to even the Rocks or the Beam Tin Mines, which have yielded such enormous profits.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

CONDUERROW.—In the 50 fm. level, there is a branch of ore 8 in. solid.

HERODSFOOT.—I have made an especial visit to this mine, for the purpose of furnishing you with the latest and most correct information that could be obtained. I have delayed writing a few posts, anticipating that they would have intersected the lode at the 82 fm. level; but I find they have experienced some considerable delay, in consequence of their having to timber the cross-cut, and the great influx of water also impeding their progress. In the 72 fm. level south they have now the best end they ever had, which is several fathoms beyond the poor end in the 62 fm. level above, which is obvious that they improve in length as well as in breadth; the lode is 2½ ft. wide, and really rich, from the work I have seen. From the men just come up from underground, I find they are come to the capel of the lode—therefore, it will not be long before they will see its value. On Thursday last they sampled 75 tons of silver-lead ore, being about 45 tons of the best work and 30 tons of the inferior.

— We are daily expecting to cut the lode in the 82 fm. level. The 72 south still continues good, worth from 14*l.* to 16*l.* per fm.; this end is now 4 fathoms beyond the 62, which was stopped some time since. The two north ends of the 62 and 70 are both looking well.

HERODSCOMBE.—The masons have nearly completed the engine-house, which by their contract was to have been finished this week to receive the engine, which is on the spot, and the crusher will be ready next week, in accordance with the contract. They have on the floors from 12 to 14 tons of ore dressed, and they are putting aside large quantities for the crusher, as bucking is an expensive operation. I should think, from the size of the pile, that they will have from 30 to 40 tons of lead ores for sale shortly after the crusher goes to work. They have driven between 50 and 60 fms. of ore ground at the adit level, and the lode is looking well, going to hill; the south end has been poor, but it is now a good orey lode. The new engine-shaft is down about 10 fms. under the adit, and they will continue to sink with a water barrel during the present dry season; the killas is of a beautiful blue kind. They do not contemplate cutting the lode until their engine goes to work; this I should consider a very prudent step, for they will undoubtedly have a quantity of water. In sending you these remarks, made on the spot, I should consider it a gross omission were I not to state that I have received every assistance from the agents, whose readiness to furnish information is highly creditable; and I am satisfied that both mines are conducted with the strictest economy, whilst zeal and ability are pleasingly manifest.

INCRUSTATIONS IN STEAM-BOILERS.—On this important subject we are indebted to a friend, for the following statement of his method of removing the incrustations, in the case of fresh water being used: we expect something equally simple will effect the like good in salt water boilers:—"Having mentioned to you a remedy for clearing steam-boilers which are encrusted with a thick coat of shale, from the effect of using hard water, strongly impregnated with lime, I now give you particulars how I used to treat the one I had in use for many years. On a Saturday evening the fire was taken from under the boiler, the lid of the man hole was taken off, and the water in the boiler left to cool for an hour. Afterwards a large hand-bowl full of alum was thrown in with the hand all round the edges of the boiler; it was then left until the water was nearly cold, and all the crust or shale deposited at the bottom, which was then removed, when the plug-hole was open to let off the water.—*Liverpool Mercury.*

CHARING-CROSS BRIDGE COMPANY.—A special meeting of shareholders was held at the offices, Villiers-street, on Monday last, when it appeared that the company having, through the opposition of two or three shareholders, failed in obtaining their bill for the sale of the bridge, had forfeited 10,000*l.* to Messrs. Jackson, Reed, Walmsley, and Fuller; these gentlemen had agreed to take 9000*l.*, and it was resolved to raise 20,000*l.* by new shares, and that a committee be appointed to examine the accounts.—The meeting was a stormy one and law proceedings are threatened.

NEW PATENTS.

R. W. Sievier, Henrietta-street, Cavendish-square, for an improved material or materials for purifying or decolorizing bodies, which material may also be employed as manure and pigments, and for other like purposes.

W. E. Newton, Chancery-lane, for certain improvements in the manufacture of screws.

W. L. Beal, Whitstable, Kent, for improvements in the construction of anchors.

A. V. Newton, Chancery-lane, for certain improvements applicable to locomotive engines and carriages employed on railways. (Being a communication.)

S. Stokes, Monkwell-street, for an improved machine for tracing or engraving from solid bodies, or subjects in relief.—*Mechanics' Magazine.*

RAILWAY-CARRIAGE BREAKS.

The startling frequency of railway accidents of late has, at least, had one good effect—namely, in directing the minds of engineers and practical men to the means which the resources of mechanics have provided for the prevention of casualties involving, in the majority of instances, the deaths of many human beings. The people in power, "our own" engineers on the different lines, with the usual apathy of those who have nothing to gain by further activity, have rested content with what has already been done; and, when an accident does occur, they refer for a cause to the frailty of the servants of the company, and refuse to admit that their own sagacity had neglected any possible precaution. The public, however—the party most interested—are still desirous of obtaining the utmost possible security out of wood and iron; and, as a consequence, many gentlemen known to fame, though not personally acquainted with any of the railway monarchs, have been recently busy in maturing inventions, or supposed inventions, by which they hope to obviate, in a greater degree than already accomplished, the risks of steam locomotion. The accident at Wolverton, on the North-Western line, resulted, no doubt, from the error of the policeman stationed at the points; but the evidence detailed at the inquest showed also, that had the break-power on the train been adequate to its length and weight, a stoppage might easily have been effected within the 400 yards—the distance between the entrance to the siding, where the danger was first detected, and the waggons with which the train came into collision. The guards and the engine-driver did all they could with the breaks, but the breaks could do very little. A correspondent of the *Times*, some time ago, pointed out the necessity of three or four carriages, each provided with a break, being always placed together at the front of a train, in order that one man might pass from one carriage to the other, and so quickly multiply the means of bringing the whole up in a short time. It would, therefore, be at once obvious, that any plan by which three or four—or say a dozen—breaks could be at once applied, would be most beneficial, and greatly diminish the danger which at present always exists in a sudden emergency, when the chances of a collision are foreseen, and when the difficulty is to "pull up." The suggestions to attain this desirable end are numerous. We have seen a plan originated by Mr. D. Crawford, civil engineer, Birmingham, of great ingenuity, and one to which we think the attention of railway authorities should be directed, that they may adopt, or borrow a hint from, it. Mr. Crawford proposes to apply to any number of carriages breaks in connection, and set them altogether in motion by a mechanical force on the last carriage in the train. The important feature in the invention is, that the engine-driver or the guard may in a moment work the breaks as they see occasion. By means of springs, similar in construction to common buffer-springs, the retarding force is distributed equally on every wheel of every carriage, with the utmost degree of nicety; and, besides the combined action dependent upon the force employed, the breaks of each separate carrage can be used as in the present system. So valuable a substitute for the existing deficient plan, would seem to deserve consideration.—*Liverpool Standard.* [Mr. Crawford's break formed an interesting subject of consideration at the meeting of the Institution of Mechanical Engineers, at Birmingham, a report of which appeared in the *Mining Journal* on the 2d and 29th May last.]

MANCHESTER AND SOUTHAMPTON RAILWAY—IMPORTANT DECISION.—At the Judge's Chambers, on Monday last, Mr. BULLER, in opening the case Freebody and another *v.* James Walkinshaw, said, that this was an action of *assumpsit*, brought by the plaintiffs against Mr. James Walkinshaw, as chairman of the Manchester and Southampton Railway, for the sum of 11,000*l.*, for work and labour done in surveying the above line. The defendant had pleaded "never indebted." Issue was joined on the 20th of June. On the 2d of July the defendant had a conference with his legal advisers, when it was discovered that a material witness, named John England, ought to be called, and that the defendant could not safely go to trial without him. Several applications had been made to the offices of Messrs. Bidder and Stephenson, the engineers to the line, in whose service the said John England was then employed; but, from information then obtained, it appeared that he was at present engaged in making surveys for a line of railway in Norway, and that he was not expected to return home until the end of the autumn. He (Mr. Buller) complained that the particulars had not been furnished earlier than the 3d of June; and he further said, that the present defendants were entitled to large damages from the plaintiff for negligence in making the surveys, which prevented the Standing Orders from being complied with. A cross action had already been brought by the present plaintiffs, but the parties had refused to plead; he, therefore, moved that the cause might be postponed—it having been set down for trial at Croydon during the present assizes, in consequence of the absence of the said John England, he being a material and necessary witness in the case.—Mr. HODSON objected on the ground—first, that great delay had been caused by the defendants, they having been served with notice of trial on the 1st of June, and this application not being made until the 5th of July; secondly, that there was no certainty when the witness England would reach town, and, therefore, it could not be known whether the trial would come on on the 1st of October, the time prayed for; and, thirdly, that if the application was granted, it might have the effect of throwing his client overboard, as he was only a single man against a company; at least, it appeared to him (Mr. Hodson) to look like an attempt to do so. If the evidence was material, they could obtain it by issuing out a commission.—After some other remarks on both sides, his LORDSHIP said the case should be tried, notwithstanding it was a special jury case, on the second sittings in term—the defendant being at liberty to sue out a commission, and use the depositions, on payment of the costs incurred in preparing for trial at Croydon.

TWENTIETH REPORT OF THE LONDON JOINT STOCK BANK.

At a General Meeting of the Shareholders, held at the Banking-house of the Company, in Princes-street, Mansion-house, on Thursday, the 15th July, 1847.

JOHN C. LOCHNER, Esq., Chairman.

GEORGE HOLGATE FOSTER, Esq., Deputy-Chairman.

DIRECTORS.

Sir Felix Booth, Bart.	John C. Lochner, Esq.
Right Hon. Sir George Carroll, Lord Mayor	Sir John M'Taggart, Bart., M.P.
William Miller Christy, Esq.	George Meek, Esq.
William Curling, Esq.	William Mitcalfe, Esq.
Robert Farrand, Esq.	Ambrose Moore, Esq.
George Holgate Foster, Esq.	John Timothy Oxley, Esq.
William Ormsby Gore, Esq., M.P.	George Scholefield, Esq.
Sir Richard Jenkins, G.C.B.	William Shadbolt, Esq.
Archibald Hastie, Esq., M.P.	George Tayler, Esq.
William J. Lancaster, Esq.	

THE MANAGER—George Pollard, Esq.

SOLICITORS—Messrs. Tilson, Squance, Clarke, and Morice.

The following report was presented:—

The directors have the pleasure of presenting the accounts of the bank for the last half-year, and of informing the shareholders that the net profit for that period amounts to £34,663 1s. 6d.

In pursuance of the determination expressed in their last report, the directors have appropriated £18,000 for the payment of the usual dividend, after the rate of 6 per cent. per annum, carrying forward the sum of £16,663 1s. 6d. as undivided profit, to be disposed of at the conclusion of the year.

The dividend will be payable on and after Friday, the 23d July inst.

The preceding report having been read to the meeting by the secretary, a dividend for the half-year, ending the 30th June last, after the rate of 6 per centum per annum, was declared by the chairman.

Resolved unanimously,—That the report now read be received, and that it be printed for the use of the shareholders.

Resolved unanimously,—That the thanks of this meeting be presented to the chairman and directors, for the very able manner in which the affairs of the bank have been conducted by them, and for the satisfactory accounts which they have this day rendered.

Resolved unanimously,—That the thanks of this meeting be given to George Pollard, Esq., for his able and unremitting exertions as manager of this bank.

(Extracted from the minutes.) (Signed) JOHN C. LOCHNER, Chairman.
(Signed) F. HEWATT, Secretary.

EIGHTH REPORT OF THE UNION BANK OF LONDON.

PRESENT:—

Sir PETER LAURIE, Alderman, Governor, in the chair.
ANDREW SPOTTISWOODE, Esq., Deputy-Governor.

DIRECTORS.

George Webster, Esq.	Archibald Cockburn, Esq.
John Barnes, Esq.	Peter Laurie, Esq.
J. W. Sutherland, Esq.	John Connell, Esq.
James Farquhar, Esq.	William Morley, Esq.
W. M. Nurse, Esq.	Charles Lyall, Esq.

And 92 proprietors.

At a General Meeting of the proprietors, held at the Court-room of the Banking-house, 2, Princes-street, Mansion-house, on Wednesday, the 14th of July, 1847, the following report was read by the Secretary:—

The directors have much pleasure in submitting the eighth annual report of the affairs of the bank to the proprietors, and congratulating them on the result of the business during the last year, a period marked by unusual commercial pressure.

It will be seen from the accounts now presented, that the net profits of the year amount to £47,598 16s. 7d. Ample provision has been made for bad debts, and the proprietors will observe that £25,145 1s. 10d. has been paid to customers for interest on their current and deposit accounts.

The directors consider that they are justified by this prosperous result in increasing the rate of dividend; and they have, therefore, declared a dividend, for the last six months, of 3½ per cent, which, with 2½ per cent. paid in January, will make the dividend 6 per cent., clear of income tax, for the whole year. The directors have the fullest confidence that this rate will be permanent, without either trenching on the reserved fund, or affecting those principles on which the bank was originally founded.

After providing for the dividend (now amounting to £25,374 for the year), and appropriating £500 as usual in gradual liquidation of the preliminary expenses, there remains a surplus profit of £21,724 16s. 7d., of which £16,696 5s. 5d. has been carried to the reserved fund, now amounting to £40,000 sterling, invested in Government securities, and the balance of £5028 11s. 2d. has been carried to profit and loss new account.

The directors have considered the subject of the appropriation of the reserved shares, and have resolved that they shall be offered in the first instance to the shareholders only, in rateable proportion to the shares held by them, and on such terms as shall be equivalent to a liberal bonus; and the proprietors may rely on the directors giving ample notice of, and selecting such a period for, this appropriation, as shall be most desirable for the interests of the bank, and advantageous to the proprietors individually.

In accordance with the provisions of the Deed of Settlement, the following directors retire from office by rotation—viz.: Peter Laurie, Esq.; James Farquhar, Esq.; William Peter Craufurd, Esq. And Peter Laurie, Esq., and James Farquhar, Esq., being eligible, offer themselves, and are recommended by the court of directors, for re-election; and the directors have received notice from John Chapman, Esq., of No. 9, Leadenhall-street, a duly qualified shareholder, of his intention to offer himself as a candidate for the office of a director at this meeting.

THE UNION BANK OF LONDON, 30TH JUNE, 1847.

Dr. LIABILITIES.			
Paid-up capital, £10 per share, on 42,290 shares		£422,900	0 0
Due by the bank on current accounts, deposit receipts (including interest accrued), circular notes, &c.		2,510,064	5 2
Reserved fund, invested in Three per Cent. Consols, as per contra		22,954	15 8
		£2,955,919	0 10
Surplus profit		47,598	16 7
Total		£3,003,517	17 5
Cr. ASSETS.			
Cash in the bank, in the Bank of England, loans, Exchequer Bills, and other Government securities, bills discounted, &c.		£2,899,749	0 9
£23,961 18s. 5d. Three per Cent. Consols (reserved fund)		22,954	15 8
Bank premises, consisting of freehold buildings in Princes-street, Mansion-house, and Argyll-place, and purchase of lease and fixtures of premises, 4, Pall-mall East		57,741	11 0
Preliminary expenses		12,500	0 0
Half-year's dividend, to 31st Dec., 1846, amount carried forward		10,572	10 0
Total		£3,003,517	17 5

APPROPRIATION OF THE SURPLUS.

Dividends on paid-up capital—viz.:	
Half-year, to 31st Dec., 1846, already paid, at 2½ per cent.	£10,572 10 0
Half-year, to 30th June, 1847, now declared, at 3½ per cent.—making the rate of the dividend for the whole year 6 per cent.	14,801 10 0
	£25,374 0 0
Addition to the reserved fund	16,696 5 5
Proportion of preliminary expenses	500 0 0
Undivided profit carried to profit and loss new account	5,028 11 2
	£47,598 16 7
Profit, as above, after deducting all expenses paid or due, and interest (£25,145 1s. 10d.) allowed to customers on their current and deposit accounts	£47,598 16 7

The governor declared a dividend of 3½ per cent. for the past half-year, being at the rate of 6 per cent. per annum, from the 1st July, 1846.

It was then proposed, seconded, and resolved unanimously—

That the report now read be received, approved, and printed for circulation among the proprietors.

That Peter Laurie, Esq., be re-elected a director of the bank.

That James Farquhar, Esq., be re-elected a director of the bank.

That John Chapman, Esq., be elected a director of the bank.

That the thanks of the meeting be given to the governor, deputy-governor, and directors, for the very efficient and admirable manner in which they have conducted the affairs of the company.

To Mr. W. W. Scrimgeour, the general manager, and the other officers of the bank, for the efficient discharge of their respective duties. (Signed) P. LAURIE, Governor.

The most cordial thanks of the meeting were then voted to Sir Peter Laurie, the governor, for his able and courteous conduct in the chair.

(Signed) A. SPOTTISWOODE, Deputy-Governor.

As the income tax on the profits of the bank will be paid by the company, individual shareholders are not liable for the same.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Eleven o'clock.

Bank Stock, 7 per Cent., 195 6½
3 per Cent. Reduced Ann., 89¾ ⅞
3 per Cent. Consols Ann., 89 ⅞
3 per Cent. Annuities, 86⅛
3½ per Cent. Ann., 91½ ⅝
Long Annuities, 9½
India Stock, 10½ per Cent., 246½
3 per Cent. Consols for Opening, 88¾ ⅞
Exchequer Bills, 1000*l.* 3d., 12 9 13 pm.
Belgian Bonds, 4½ per Cent., —
Dutch, 2½ per Cent., 57½
Brazilian, 5 per Cents., 83½ 4
Chilian, 6 per Cents., 92½ 2
Mexican, 5 per Cents., 19½ 19
Spanish, 5 per Cents., 22
Ditto 3 per Cents., 31⅝
Portuguese, 4 per Cents., 31
Russian, 5 per Cents., —

MINES.—The business transacted during the week has not been of an extensive nature—still that which has been done appears to have given a tone of firmness to the market. Several purchases have been made, in which the buyers have advanced to prices previously rejected. We, therefore, consider, from what has been done, and negotiations still pending, that the mining share market is decidedly improving.

North Roskear meeting was held on Monday last, when a dividend of 10*l.* per 70th share was declared. The mine is represented as looking very well, with a prospect of an increased dividend at next account.

The business done appears to have been principally in the following mines—viz.: Trelawney, Trehane, Mary Ann, Herodsfoot, Plymouth Wheal Yeoland, Franco, Devon and Courtenay, Exmoor Wheal Eliza, Stray Parks, Treleigh Consols, Treviskey and Barrier, Dartmoor Consols, East Crowndale, West Wheal Treasury, Fortescue, East Wheal Rose, Callington, Gwinear Consols, Ryalton, West Providence, &c. &c.

Gwinear Consols have been done since our last at present quotations, and in some instances higher, as we are informed. Pennants have been done at little above par; but as the transaction was a "private" one, we do not take the price as a fair quotation.

A large number of Dartmoor Consols was purchased yesterday, at a lower figure than at present quoted.

At a merchant's counting-house in Fenchurch-street, we have seen some extraordinary and beautiful stones of copper ore, stated to have been brought from the south part of North America; but as the arrangements for the property have not yet been completed, we do not feel justified in stating more until then, when we shall be happy to furnish particulars from this grand deposit of copper ores.

RAILWAYS.—The railway market opened at the beginning of the week, and continuous orders for sales, even at reduced prices, kept arriving from the provinces. Wednesday was settling day, which passed off without anything remarkable, except that money was in demand; but towards the close of the week, things had evidently improved, and business was transacted with greater confidence.

MEETINGS.—BIRMINGHAM AND LEICESTER: to wind up; the expenses had been 26,205*l.*, and receipts 52,331*l.*; 1*l.* per share had been returned: making 24,715*l.*, and 1s. per share more would take the balance remaining of 1411*l.*—PARIS AND ROUEN: a meeting of Liverpool shareholders, to meet Mr. Reed on subject of altering the laws regulating the sinking fund; 14,400*l.* was now set apart as a sinking fund, which would clear the capital debt in 40 years; it was now proposed to lay by 800*l.* a-year only, which would clear it off in 99 years, the time of the concession, and thus fairly spread it over the whole period, and relieve the present generation from payment of the whole.

At Messrs. Lamond's sale, on Wednesday, the market was slightly improved, as compared with transactions of the previous week.

HULL, THURSDAY.—The gloom which hung over the share market during the last week, has, during the present, been partly dispelled; and the market, for the last two or three days, has exhibited considerable buoyancy. New Berwicks have been in particular request this morning, at advancing rates.

RAILWAY TRAFFIC RETURNS.

From these returns, it will be seen, that the amount of traffic for the last week, on nearly 3154 miles of railway, was 184,654*l.*, thus accounted for:—106,249*l.* for the conveyance of passengers only, 41,254*l.* for the carriage of goods, and a remainder of 37,151*l.* for passengers and goods together, not respectively apportioned; being an increase over the corresponding week of last year of 23,777*l.*, when the mileage was about 2,290.

Name of Railway.	Lgth. Rway.	Present actual cost.	Last Div.	Traffic Returns. 1847	1846
Arbroath and Forfar	15	£142,900	3 p.c.	——	£ 230
Chester and Birkenhead	15	658,293	2½	813 18 11	774
Dublin and Drogheda	35	689,248	3½	1017 3 0	838
Dublin and Kingstown	7½	473,282	9	1351 8 6	1257
Dundee and Arbroath	16½	156,323	6	1000 9 2	345
Dundee, Perth, and Aberdeen	47	285,745	—	1000 9 2	—
East Lancashire	30½	814,417	—	1007 7 7	—
Eastern Counties	226	6,513,026	7	15144 19 10	9723
Eastern Union	44	531,021	—	1234 8 7	470
Edinburgh and Glasgow	48	2,275,435	6	3454 9 3	3795
Glasgow, Paisley, and Ayr	60½	1,567,281	7	2766 8 1	2261
Glasgow, Paisley, & Greenock	23	835,918	2	1271 1 2	1256
Great Southern and Western	110½	1,343,718	—	1657 11 11	—
Great Western	241	9,714,939	8	21167 14 7	20076
Kendal and Windermere	14	——	—	213 9 8	—
Lancaster and Carlisle	70	975,625	—	1364 0 0	518
London and North Western	378½	18,042,004	10	43070 5 4	42317
London and Blackwall	4	1,102,717	1½	1454 4 11	1477
London, Brighton, & South Coast	137½	5,109,667	7	9494 19 0	8336
London and South-Western	186½	4,278,789	9	10374 13 10	8023
Manchester & Leeds	117½	5,036,391	5½	9053 10 5	8637
Manchester, Sheffield, & Lincolnsh.	49½	1,678,108	5	2231 13 11	1887
Maryport and Carlisle	28	——	—	——	—
Midland Company	360½	7,862,274	7	20521 11 2	17597
Newcastle and Berwick	65	1,184,079	5	1789 9 2	—
Newcastle and Carlisle	65	1,184,080	5	2687 18 3	2028
Norfolk	70½	1,199,689	7	2301 10 4	1628
North British	72½	1,459,958	—	1983 14 9	1686
Shrewsbury and Chester	17	354,945	—	389 17 6	—
South Devon	20	1,061,283	5	814 16 10	543
South-Eastern	157½	5,888,411	3½	9860 3 6	9244
Taff Vale	38	888,411	6½	1628 14 11	1240
Ulster	25	358,353	5½	854 0 10	644
Whitehaven Junction	12	91,274	—	221 13 0	—
York and Newcastle	163½	1,712,317	9	7850 13 6	7155
York and North Midland	182½	2,483,256	10	7954 16 4	6615

RAILWAY TRAFFIC.

The following are the receipts on the various lines of railway for the six months ended June 30, 1847, and for the corresponding period last year:—

Lines of Railway.	*Half-year's total.*	*Same in 1846.*
Arbroath and Forfar	£5921	£5076
Chester and Birkenhead	18332	18215
Dublin and Drogheda	21068	19041
Dublin and Kingstown	23989	26554
Eastern Counties	269683	207400
East Lancashire	21773	—
Edinburgh and Glasgow	90063	80950
Glasgow, Greenock, &c.	28618	24188
Glasgow, Paisley, and Ayr	62095	55079
Great Western	491115	482054
Great Southern and Western	33032	—
Kendal and Windermere	1655	—
Lancaster and Carlisle	18598	—
London and Blackwall	25351	25775
London and Brighton and South Coast	183937	147309
London and North-Western	1044425	1019250
London and South-Western	194253	175984
Manchester and Leeds	215583	207561
Midland	493911	422017
Manchester, Sheffield, and Lincolnshire	52905	46830
Newcastle and Carlisle	57877	48819
Newcastle and Berwick	19204	—
Norfolk	45050	34582
North British	40668	—
Shrewsbury and Chester	10243	—
South-Eastern	196473	173604
South Devon	14492	—
Whitehaven Junction	2937	—
York and North Midland	156059	133861
York and Newcastle	207029	170928

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Adair's Main 15 6—Carr's Hartley 17 6—Delaval Hartley 16 6—New Tanfield 16—Original Tanfield 15 6—Ord's Redheugh 15 6—Tanfield Moor 17 6—Wall's End Acorn Close 17—Bewicke and Co. 17 3—Eden Main 17 6—Haswell 18 9—Hetton 18 6—Lambton 18—Russell's Hetton 18—Shotton 17 9—Heugh Hall 17—Kelloe 18 3—Cowpen Hartley 17 6—Derwentwater Hartley 17 6.—Ships, 65; sold, 43; unsold, 22.

WEDNESDAY.—Adair's Main 15 6—Bate's West Hartley 17—New Tanfield 16—West Hartley 17 6—Wylam 15 9—Eden Main 17 6—Derwentwater Hartley 17 6—Wall's End Hotspur 16 6—Northumberland 16 6—Walker 17 3—Wharncliffe 17—Belmont 17 6—Braddyll's Hetton 18—East Hetton 17—Haswell 18 9—Hetton 18 6—Lambton 18—Russell's Hetton 18—Stewart's 18 6—Whitwell 17—Hartlepool 18 6—Adelaide 17 6—South Durham 17—Tees 18 3.—Ships at market, 47; sold, 34; unsold, 13.

FRIDAY.—Adair's Main 16—Buddle's West Hartley 17 3—Dean's Primrose 15 9—Hasting's Hartley 17 3—Holywell Main 16 9—New Tanfield 16—Ord's Redheugh 15 6—West Wylam 16—West Hartley 17 3—Wall's End Acorn Close 17—Bewicke and Co. 17 3—Hebburn 16 6—Hilda 16 9—Killingworth 17—Wharncliffe 17—Eden Main 17 6—Belmont 17 6—Braddyll's Hetton 18—Haswell 18 9—Hetton 18 6—Keepier 18—Lambton 18—Shotton 17 6 to 17 9—Stewart's 18 6—Whitwell 17—Hartlepool 18 6—Hudson's Hartlepool 17 3—High Thornley 16 6—Heugh Hall 17—Thornley 17—South Durham 17—Davison's West Hartley 17 3—Tees 18 3—Cowpen Hartley 17 3—Derwentwater Hartley 17 3—Howard's West Hartley Netherton 17 3—Ships at market, 111.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price.
1000	Abergwessin	7	12
512	Albert Consols	1	2½
1024	Alfred Consols	4¼	40
256	Alternum Consols	2	12
235	Andrew and Nanglies	28½	16
10000	Ayrshire Iron Company	5	4½
1624	Balleswidden	9	18
128	Balnoon Consols	25	25
10000	Banwen Iron Co.	2	—
1000	Barristown	4½	18
4000	Bedford	2½	3½
128	Besore Lead Mine	14	10
315	Birch Tor Tin Mine	24½	7½
8000	Blaenavon	50	23
100	Botallack	175	140
120	Brewer	5	7
10000	British Iron, New, regis.	10	18½
—	Ditto ditto, scrip	10	19
128	Budnick Consols	52½	40
128	Burthy	20	21
100	Bwlch Cwmerfin	20	—
128	Callestock	17	30
1000	Callington	19	28
256	Caradon Copper Mine	9½	1
256	Caradon Mines	22½	17
256	Caradon United	24	10
256	Caradon Wh. Hooper	20	4
1000	Carn Brea	15	105
2048	Carmarthen Consols	2	3
112	Charlestown	200	100
166	Cleveland	9	6½
512	Coatlithe Hill	½	1¼
1900	Combmartin	7½	3
500	Comblawn	1½	1½
128	Comfort	45	80
256	Condurrow	20	27
2560	Cook's Kitchen	14	5½
1000	Coombe Valley Quarry	1	1¼
1000	Copper Bottom	1	5
1024	Cosheen	4½	20
240	Craddock Moor	15½	15
128	Creeg Braws	120	150
500	Cubert Mine	12½	23
2048	Dartmoor Consols	2	4
7100	Derwent	8½	5
1024	Devon&Courtenay Con.	6	3
1000	Dhurode	2	5
186	Dolcoath	30	50
2560	Drake Walls	4	4
10000	Durham County Coal	45	9
256	East Alvenney	6	10
112	East Caradon	42	42
2048	East Crowndale	4½	1¼
512	East Combe Silver-Lead	6½	6½
128	East Pool	5	20
100	East Relistian	22	40
9000	East Tamar Consols	1½	2
—	East Wheal Albert	1	3
94	East Wheal Crofty	280	310
256	East Wheal Fortune	2	3
128	East Wheal Rose	50	1300
2048	East Wh. Rough Tor	½	2
—	East of Scotland Iron Co.	2½	1½
123	East Wheal Seton	14	20
256	Elborough	1½	2½
256	Exmoor Wh. Eliza	3½	12
512	Fowey Consols	40	45
20000	Galvanised Iron Co.	10	9½
10000	Gen. Mining Co. for Irel.	2	1½
2048	Georgia Tin Mines	1½	1½
256	Gonamena	31½	70
128	Goonvrea	4	1¼
244½	Grambler & St. Aubyn	—	15
100	Great Consols	1000	400
256	Great Callestick Moors	22	25
2560	Great Michell Consols	1½	4
256	Great Resugga Moor	2	4
512	Gt. Wh. Rough Tor Con.	6½	36
1500	Great South Tolgus	2	2
100	Grogwinion	5	—
1000	Gunnis Lake	1½	3
256	Gwinear Consols	5	25
1000	Hauson	14	2
1000	Harrowbarrow Old Mine	8½	2½
800	Hawkmoor	3	2
6000	Heignston Down Con.	½	2½
256	Herodscombe	½	6
256	Herodsfoot	14	12
10000	Hibernian	12½	1⅛
—	Hobb's Hill	4	3
1000	Holmbush	19	8
827	Kirkcudbrightshire	5½	9½
2048	Lamberoe Wh. Maria	9	3
2048	Lanivet Consols	4	2½
200	Larkholes	1	3
128	Lelant Consols	90	60
160	Levant	—	90
1000	Lewis	15	6½
1280	Llancynfelin	6	—
1000	Llwyn Malees	5	—
3600	Llynvi Iron	50	60-65
256	Lostwithiel Consols	7	7
128	Ludcott	3	3
4000	Marke Valley	10	—
5000	Mendip Hills	2	1½
0000	Mining Co. of Ireland	7	6½
256	New East Crowndale	3½	3½
128	North Fowey Consols	25	20
100	North Pool	45	250
70	North Roskear	10½	400
512	North Treburget	2	3
100	North United	72	15
256	North Wh. Abraham	½	12
262	North Wh. Leisure	1½	3½
128	North Wh. Providence	2½	8
15000	Northern Coal Co.	23	2
1200	Old Delabole Slate Co.	25	50
128	Par Consols	900	1000
256	Penhallow Moor	15	4
4000	Pennant	1	2
100	Penrhiw	30	65
256	Pentuan Wheal Mary	2½	6
128	Pen-y-Cefn Mine	50	55
1280	Perran St. George Un.	13	20
128	Perran Wh. Virgin	9½	30
512	Plymouth Wh. Yeoland	4½	22
2048	Prince Edward	1½	1½
112	Providence Mines	35	45
256	Redruth Consols	3	5
10000	Rhymney Iron	50	30
10000	Ditto New	7	6½
256	Rose Consols	10	11
1000	Rosewall Hill	1	5
256	Rosewarva Mines	—	12
—	Shotts Iron Company	50	65
2500	Silver Valley	4	2
128	South Caradon	10	410
2000	South Dolcoath	2	2
256	Sth. Friendsh. Wh. Ann	16	14
200	South Harvannah	23	26

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price.
9000	South Tamar	½	½
256	South Tolgus	2½	18
800	South Towan	10	1½
256	South Trelawney	15½	10
128	South Yeoland	16½	20
128	South Wheal Basset	110	65
124	South Wh. Francis	160	210
256	South Wh. Hope	—	5
1000	South Wh. Maria	2½	2½
256	South Wheal Rose	11½	1
10000	Southern&Western, Irish	2	4-5
280	Spearne Moor	30	40
256	St. Austell Consols	8	14
94	St. Ives Consols	—	320
128	St. Michael Penkivel	5	10½
1000	Stray Park	43	30
9600	Tamar Consols	5	5½
1024	Tavy Consols	3½	5
6000	Tincroft	7	8
1000	Tin Vale Consols	2	2½
256	Ting Tang	15	10
128	Tokenbury	143½	10
256	Trehane	2	23
5000	Treleigh Consols	6	4
2000	Trenance	2	—
256	Trenow Consols	30	25
96	Tresavean	10	250
120	Trethellan	5	27½
120	Treviskey and Barrier	130	160
256	Trewollack	20	15
128	Trewellard	12	26½
6000	United Hills	5	½
100	United Mines	300	400
256	Wellington Mines	15	30
128	West Basset	45	25
256	West Caradon	20	168
128	West Cargoll	2	12
512	West Fowey Consols	40	15
256	West Grambler	7	8
—	West Kekewich Consols	—	3
256	West Providence	1	18
200	West Seton	40	60
—	West of Scotland Iron Co.	210	212
120	West Trethellan	5	35
256	West United Hills	2½	4
256	West Wh. Friendship	7½	4
3845	West Wheal Jewel	11	2½
2560	West Wh. Maria	1½	½
2560	West Wheal Rough Tor	½	2
256	West Wheal Shepherd	5	2½
256	West Wheal Tolgus	21½	3
256	West Wheal Treasury	19	8-9
5200	Wicklow Copper	5	11
184	Wheal Adams	41	10
1000	Wheal Agar	—	8
256	Wheal Albert	10	8
128	Wheal Acland	13	2
256	Wheal Allen	2	5
237	Wheal Anderton	16½	26
128	Wheal Ann	—	50½
128	Wheal Arvose	3½	4
1024	Wheal Ash	3	12
120	Wheal Bal	5½	20
2560	Wheal Barbara	1½	3
256	Wheal Benny	6½	5
256	Wheal Blencowe	8	12½
256	Wheal Bucketts	20	22
256	Wheal Byon Consols	½	½
256	Wheal Calstock	3	4
136	Wheal Clifford	190	190
1024	Wheal Concord	6½	1½
128	Wheal Courtenay	—	20
6000	Wheal Curtis	1½	½
256	Wheal Dyke	12	13
256	Wheal Fortescue	5½	8
512	Wheal Fortune Consols	8½	6½
2048	Wheal Frederick	2	2
388	Wheal Franco	27	40
1024	Wheal Grace	3	2½
128	Wheal Harriet	45	50
256	Wheal Jane	16	30
256	Wheal Kekewich	4	4
256	Wheal Louisa	7½	12
112	Wheal Margaret	79	250
256	Wheal Maria (Hayle)	19	12
1024	Wheal Maria	1	350
4000	Wheal Martha Consols	5	2
512	Wheal Mary Ann	5	24
256	Wheal Mary Consols	38	25
256	Wheal Mary (Lanivet)	6½	4
256	Wheal Maude	1½	1½
128	Wheal Pollard	12½	12
210	Wheal Prospect	4	7
120	Wheal Reeth	27	30
128	Wheal Rose	60	45
2048	Wheal Samson	—	20
99	Wheal Seton	214	350
256	Wheal Sisters	29½	35
256	Wheal Sophia	3½	10
128	Wheal Spearne	10	75
128	Wheal St. Ann	9	15
260	Wheal Trelawney	7½	115
256	Wh. Tremaine (St. Ervan)	1½	20
256	Wheal Tremayne	35	35
128	Wheal Trew	20	21
256	Wheal Trevenna	3	4
92	Wheal Tryphena	140	300
128	Wheal Venland	12½	10
256	Wheal Vlow (Perranz.)	½	½
184	Wheal Vyvvan	—	60
256	Wheal Williams	6	18

FOREIGN MINES.

Shares.	Company.	Paid.	Price.
5000	Alten Mining Company	14½	3½
15000	Asturian Mining Co.	10	6½
20000	Australian	2	6½
10000	Anglo-Mexican Co.	100	2
12374	Ditto Subscription	25	2½
3000	Bolanos	150	6½
2000	Ditto Scrip	15	6½
12000	Brazilian Imperial	20	4½
10000	Cobre Copper Co.	40	25
8500	Colombian Co. regis.	55	1 (with Ditto Scrip)
5000	Ditto Scrip	5½	
5000	Copiapo Mining Co.	14	3
10000	General Mining Ass'n.	20	15½
5000	Kinzigthal Mining Ass.	2	4½
20051	Mexican Company	59	—
2000	Mexican & South Amer.	7	3
5000	Mocaubas & Cocaes	25	4½-5
29320	Rl. del Monte, regis. / Ditto unregistered	28½	av. 2½
	Ditto Red Debentures	—	20
	Ditto Black ditto	—	14
	Ditto Loan Notes	150	97½
7000	Royal Santiago	10	5
2000	Pachuca Mines	4	4½
11000	St. John del Rey	15	9
13174	United Mexican	28½	2

SOUTH AUSTRALIAN SHARE MARKET.

Shares.	Company.	Paid.	Price.	Shares.	Company.	Paid.	Price.
2000	Adelaide	5	6	18	South Para	15	50
600	Barossa Range	4	24	1000	Poonawurta	—	9½-10
2464	Burra Burra	5	90	400	Princess Royal	—	259
436	Grand Junction	15	28	10000	Royal South Australian	—	55½
200	Greenock Creek	5	12	600	Victoria	2	2
100000	Scottish Invest. Co.	1	1½	500	Wakefield	2	2

SOUTH AUSTRALIA AND NEW ZEALAND.

100000 North British Australasian (Kaw-aw, &c.) 1 .. 1½

⁂ We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List as we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.

JOINT-STOCK BANKS.

Shares.	*Companies.*	*Paid.*	*Div. p. cent.*	*Price.*
22,500	Australasia	£40	£3	£20½
20,000	British North American	50	5	44 45
20,000	Colonial	25	5	15½ 16
—	Commercial of London	20	6	22 23
4,000	Ionian State	25	6	24½ 25
60,000	London Joint-Stock	10	6	17½
30,000	London and Westminster	20	6	26½
10,000	National Provincial of England	35	5	36½ 38½
20,000	National of Ireland	22½	5	20½ 21
20,000	Provincial of Ireland	25	8	45½ 46
4,000	Ditto New	10	8	16
20,000	Union of Australia	25	6	23½ 24
10,000	Ditto New	2½	6	2½ 2½
60,000	Union of London	16	5	12 12½

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending July 10, was 16,675; amount of money, £69 9s. 7d.

55

LATEST CURRENT PRICES OF METALS.

LONDON, JULY 16, 1847.

	£ s. £ s. d.
IRON—Bar *a*..Wales..ton	8 7 6 8 10 0
„ ..London	0 0— 9 10 0
Nail rods „	0 0—10 10 0
Hoop(Staf.) „	0 0—11 15 0
Sheet „	0 0—13 0 0
Bars „ „	0 0—11 5 0
Welsh cold-blast foundry pig	4 10— 5 5 0
Scotch pig *b*, Clyde	0 0— 3 10 0
Rails, average	0 0— 9 0 0
Russian, CCND *c*	0 0— ——
„ PSI	0 0— ——
„ Gourieff	0 0— ——
„ Archangel	0 0—13 10 0
Swedish *d*, on the spot	11 5—11 10 0
„ Steel, fagt.	0 0—16 5 0
„ „ kegs *e*	11 15—15 0 0
COPPER—Tile *f*	0 0—97 0 0
Tough cake	0 0—98 0 0
Best selected	0 0 101 0 0

	£ s. £ s. d.
COPPER—Ordin. sheets, *lb.*	0 0— 0 0 11
„ bottoms	0 0— 0 0 12
YELLOW METAL SHEATHING	0 0— 0 0 9½
TIN—Com. blocks *g* ..*cwt.*	0 0— 4 8 0
„ bars	0 0— 4 9 0
Refined	0 0— 4 11 0
Straits *h*	4 4— 4 5 0
Banca	4 8— 4 10 0
TIN-PLATES—Ch., IC *i*, box	1 8— 1 10 0
„ IX	1 14— 1 16 0
Coke, IC	0 0— 1 5 0
„ IX	0 0— 1 11 0
LEAD—Sheet *k* ...ton	19 5—19 10 0
Pig, refined	0 0—20 5 0
„ common	0 0—18 10 0
„ Spanish, in bd.	0 0—18 0 0
SPELTER—(Cake) *l* on spot	20 5—20 10 0
„ „ for arrival	0 0—20 0 0
ZINC—(Sheet) *m* export.*	0 0— 27 0 0
QUICKSILVER *n* ...*lb.*	0 0— 0 4 6

a Discount 2½ per cent. *b* Net cash. *c* Discount 2½ per cent. *d* Ditto *e* In kegs ½ and ¾-inch. *f* Discount 3 per cent. *g* Ditto 2½ per cent. *h* Net cash in bond. *i* Discount 3 per cent. *k* Ditto 2½ per cent. *l* Net cash. *m* Discount 1½ per cent. *n* Discount 1½ per cent. * For home use it is 32*l.* per ton.

[*From our Correspondent.*]

IRON.—Welsh and Staffordshire continue as last quoted, with a fair business doing. Scotch pigs have advanced to 70s., free on board at Glasgow, where buyers are found to support the market. In Russian and Swedish nothing new.

COPPER remains firm, and in good demand, since last week's *Mining Journal.*

TIN (English) has been in fair request since the fall, but foreign is very quiet.

TIN-PLATES and LEAD are steady at quotations.

SPELTER is held at 20*l.* 5s., and several sales have taken place at that price.

GLASGOW PIG-IRON TRADE, JULY 15.—The improvement noticed in our last continued up to the beginning of this week, at which time mixed Nos. were sold at 71s. 6d. - cash. A reaction then took place, and a parcel or two changed hands at 70s., cash—subsequently, 70s. 6d. and 71s.—cash in three weeks. To-day the market is quiet, and mixed Nos. may be quoted at 70s.—cash. The strike amongst the miners, which recently took place, is still maintained.

PRICES OF METALS IN AMERICA.

NEW YORK, JUNE 30, 1847.

	$ cts. $ cts.
COPPER—Sheathing ....*lb.*	0 23½ — 0 0
„ Old	0 18½ — 0 19
„ Braziers'	0 23½ — 0 25
„ Pig	0 18 — 0 0
„ Bolts	0 24 — 0 25
LEAD*—Pig	4 50 — 0 0
„ Bar	0 5 — 0 5½
„ Sheet	0 5½ — 0 0
IRON—Pig, Eng. & Scotch	0 0 —35 0
„ „ American, No. 1	0 0 —32 50
„ „ common	22 50 —25 0
„ Bar, RPSI	100 0 102 50
„ „ Swedish	87 50 —90 0
„ „ American, old	85 0 — 0 0
„ English refined	85 0 — 0 0
„ „ common	72 50 —75 0
„ Sh. Russian, 1st qual.	0 11½ — 0 12

	$ cts. $ cts.
IRON—Engl. & American	0 5½ — 0 6
„ Hoops do. ....*cwt.*	5 50 — 6 50
NAILS—Cut 4 da. 40 ....*lb.*	0 4½ — 0 4⅝
(3d 1 c. & 2d 2 c. more)	
„ Wrought, 6 to 20	0 10 — 0 14
„ Horse-shoe	0 17 — 0 21
SHOT—Patent	0 5½ — 0 0
„ Buck	0 6½ — 0 0
SPELTER—In plates	5½ 6 — 0 0
STEEL—German ....*lb.*	0 10½ — 0 13
„ English Hoop L	0 13 — 0 13½
„ Spring	0 5½ — 0 5
„ Trieste ....*boxes*	0 0 — 0 0
„ American	0 4½ — 0 5
TIN—Block, South Amer. *lb.*	0 0 — 0 0
„ Ditto, East India	0 0 — 0 0
„ In plates, ½ dx. bx.	9 0 — 9 25

* Duty—Pig and bar, 3; old and scrap, 1½; sheet, 4 cts. per lb.

There is no change in copper. Scotch pig-iron, which was low at our last date, is held higher; Swedish bars tend upwards—selling at $82 50 to $85 per ton from ship. English bars are in demand at $66 to $67 per ton.

LEAD ORES

Sold at Truro, on the 9th July, 1847.

Mines.	*Tons.*	*Amount.*	*Purchasers.*
East Wheal Rose	42½	£15 5 6	Penpoll Company.
ditto	42½	15 5 6	Michell and Son.
ditto	30	13 16 6	Newton, Keates, & Co.
ditto	30	13 16 6	Sims, Willyams and Co.
ditto	48	48 11 0	

Total tons, 193.—Amount of money, 2682*l.* 5s. 6d.

Sold at Truro, on the 10th July, 1847.

Wheal Adams .... 37 .... £12 0 0 .... Mullins, Brothers.

⁂ In reply to several correspondents, we may state, that, at Holywell, the price paid for LEAD ORES is for 20 cwts., without any allowance for water; whilst, in Cornwall and Devon, the ton, so called, is 21 cwts., and deduction is made for water.

COPPER ORES.

The following are the Companies by whom the Ores were Purchased, at the SWANSEA SALE of July 8, 1847:—

	Tons.	Amount.
English Copper	248	4107 9 0
Freeman and Co.	146	1923 18 10
Grenfell and Sons	357	4565 15 0
Sims, Willyams, and Co.	468	7877 10 6
Vivian and Sons	735	7483 10 4
Williams, Foster, and Co.	1072	10251 17 4
Mines Royal	109	1372 2 6
Total tons	3135	£37,582 3 6

At SWANSEA, for sale July 22.—Cobre 106, ditto 102, ditto 101, ditto 80, ditto 97, ditto 66.—Copiapo 86, ditto 72, ditto 70, ditto 67, ditto 88, ditto 61.—Pensylvania 78, ditto 75, ditto 71, ditto 66, ditto 64, ditto 53.—Burra Burra 97, ditto 76, ditto 75, ditto 4, ditto 2, ditto 60, ditto 53, ditto 52, ditto 48, ditto 38, ditto 19.—Berehaven 100, ditto 98.—Tigrony 64, ditto 39, ditto 38, ditto 6, ditto 1.—Cronebane, 1.—Cuba 95, ditto 36.—Knockmahon 113.—Laxey 60.—St. Andreas 20, ditto 19, ditto 18.—Ballygahan 33.—Kaw-aw 7.—Total amount of copper ore for sale, 2675 tons.

COPPER ORES.

NO SALE on Thursday last, July 15.

Copper ores for sale on Thursday next, at Pearce's Hotel, Truro.—Mines and Parcels.—Devon Great Consols (Wh. Maria, Wh. Fanny, and Wh. Josiah) 795—Tresavean 410—Treviskey 351—West Caradon 351—Poldice 332—Fowey Consols 317—Wh. Friendship 210—Wh. Jewel 134—Bedford United Mines 103—Barrier 94—Holmbush 60—Ting Tang Consols 59—Wh. Maiden 30—South Towan 13—Wh. Unity Wood, 6.—Total, 3265 tons.

Copper ores for sale on Thursday week, at Pearce's Hotel, Truro.—Mines and Parcels.—Consolidated 1055—United Mines 1000—South Caradon 433—Perran St. George and Bolenna 365—Par Consols 264—Treleigh Consols 239—Wh. Comfort 237—St. Aubyn and Grambler 221—Trethellan 203—Wh. Sisters 180—Wh. Ellen 108—Wh. Andrew and Nangiles 77—Wh. Clifford 76—Wh. Mary Consols 50—Wh. Prudence 41—Redruth Consols 20—St. Austell Consols 20—Wh. Union 6—Davis Moor 5—Wh. Buller 3.—Total, 4603 tons.

BLACK TIN.

Mine.	*Tons. cwt. qr. lb.*	*Price.*	*Purchasers.*
Great Polgooth	24 16 0 3	£48 0 0	Calenick Co. & Williams.
Ditto	1 12 2 17	45 7 6	Ditto and ditto.

Amount of money .... £1264 10s. 7d.

Mine.	*Tons.*	*Price.*	*Purchasers.*
Wheal Albert (Devon)	1	£17 10 0	Williams and Co.

SOUTH AUSTRALIA.—The *Royal Archer*, Capt. Scott, sailed from Port Adelaide on the 18th February, and arrived at Swansea on Tuesday last, with a cargo of rich copper ore, for smelting in the copper-works of this district. When she left Port Adelaide, the *Harpoon* was ready to sail, and the *Cygnet* was engaged to load ore. The *Warabah* had left *via* Port Philip with 395 tons of copper ore, all for this port.—*Cambrian* of yesterday.

RAILWAY LABOUR IN EDINBURGHSHIRE.—The following is a statement of the number of labourers employed on the various lines of railway in course of construction in this county:—On the Caledonian Railway, from Edinburgh to Cobbinshaw, 2075; of whom 1204 are Irish, 59 are English, and 812 are Scotch. On the Hawick branch of the North British Railway, 2990: of whom 1856 are Irish, 33 are English, and 1101 are Scotch. We may also mention, that there are 385 labourers employed on the Water Company's works at Bavelaw; of whom 224 are Irish, 5 are English, and 156 are Scotch.

ACCIDENT ON THE ELY AND PETERBOROUGH RAILWAY.—Yesterday, at the Lamb Inn, Ely, after a very patient investigation into the circumstances attending the death of T. Staples, who was killed on this line on Thursday week, by the engine and train running off the rails, the jury returned a verdict to the effect, that the deceased came by his death from being crushed between the tie-rod of the axle-guard and the break van; and that the accident was caused by the train being propelled at too high a speed—the embankment being out of order, a settlement having taken place, and the rails being below their proper gauge. They expressed their decided opinion that, when an accident occur, railway companies ought to leave that portion of the line undisturbed until visited by the Government authorities.

ANOTHER DEATH ON THE EASTERN COUNTIES LINE.—As Thomas Parker was driving a load of trucks from Broxbourne to Stratford, he put his head over the engine at Mansby Bridge, to see that all was right, when it struck against a cross-tie of a peculiarly constructed viaduct there, threw him on to the rails, and the wheels severed his arms from his body. Before the stoker could render any assistance, another train passed over his body, and literally cut it in pieces.

NOTICES TO CORRESPONDENTS.

It will at all times save much trouble, and frequently considerable delay, if communications are simply directed—

To the Editor,
Mining Journal Office,
26, Fleet-street, London.

Also, to avoid trouble, Post-Office Orders should always be made payable to William Salmon Mansell, as acting for the proprietors.

"J. T. H." (Camden-town) should consult some City broker—the addresses of several will be found in our first page. The prices of shares in Joint-Stock Companies will be repeated as opportunity offers: we are quite aware of their importance, but the little variation in price renders frequent publication unnecessary.

Errata in Dr. Murray's communication, in the Journal of the 10th inst.: *for* light, *read* fight; *for* Savan, *read* Spavan; *for* rein, *read* rien; *for* detail, *read* details.

The Mining Journal is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all the news agents, at the Royal Exchange, and other parts of London.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, JULY 17, 1847.

We last week gave as usual the quarterly returns of the produce of copper from the principal mines of Cornwall; and a comparison with those of the quarter ended March 25 will, we doubt not, prove interesting to many of our readers. Devon Great Consols still takes the lead, although she has fallen off 1372*l.*, as compared with the former quarter, notwithstanding there is an increase in the total returns of 10,163*l.*; a large portion of this increase arises from the great improvement in Carn Brea, Great United, Wheal Seton, and several other mines, the produce of the former having risen from 13,697*l.* to 18,555*l.*, being an increase of nearly 5000*l.* in the quarter, and which has placed that mine second on the list. The Great United has also made great improvement, the amount of produce having risen from 10,379*l.* to 15,399*l.*, or upwards of 5000*l.*; Wheal Seton has also advanced 4298*l.*; the Great Consols nearly 700*l.*; Fowey Consols, 2124*l.*; South Caradon, 3115*l.*: Tincroft, 552*l.*; Par Consols, 3125*l.*; Treviskey and Barrier, 3024*l.*; Tresavean, 1676*l.*; Wheal Sisters, 1176*l.*; Dolcoath, 1815*l.*; Perran St. George, &c., 1801*l.*; Trethellan, 460*l.*; Wheal Tremayne, 635*l.*; East Wheal Crofty and Longclose, 2917*l.*; Stray Park and Camborne Vean, 3619*l.*; Treleigh, 1495*l.*; and numerous other mines, of smaller pretensions, have shown respectable improvement. The greatest falling off appears to be in North Roskear, her produce having decreased from 11,540*l.* to 6321*l.*—a difference of 5119*l.*; West Caradon has decreased from 8581*l.* to 7253*l.*; South Wheal Francis from 6229*l.* to 5794*l.*; Poldice from 2638*l.* to 1578*l.*; United Hills from 4152*l.* to 3386*l.*; Levant from 2511*l.* to 1059*l.*; Charlestown United from 1540*l.* to 978*l.*; Wheal Jewel from 1381*l.* to 782*l.*; South Roskear from 1286*l.* to 727*l.*; Trenow from 1094*l.* to 590*l.*; Wheal Harriet from 1016*l.* to 360*l.*; while many of the smaller producing mines have exhibited considerable fluctuation, which, though small in themselves, swell the amount in the aggregate, and accounts for the difference in the total produce being so much less than the increase in the above-mentioned mines. Having thus given the result of the comparison of the principal of those mines which have in the previous quarter returned upwards of 1000*l.*, we suggest to our readers, who are interested in mining adventure, to compare the quarterly returns of each mine, which, we believe, will be found to be generally correct.

In our publication of to-day will be found two communications on the subject of the Britannia-Bridge, over the Menai Straits—one from Mr. Motley, the other from Mr. De la Haye. In the former letter an article in Dr Lardner's *Encyclopædia* is alluded to, which we have now before us. It is a description of a model of a suspension railway bridge, exhibited by Mr. Motley in Liverpool, about the year 1830. A subsequent model, which he made, represented a bridge of 100 ft. span, and was on a scale of 1 in. to a foot—consequently, it was 8 ft. 4 in. long, and 12 in. wide; the whole weight of the iron was only 11¼ lbs., and it supported 450 lbs., with a deflection of only half an inch. Mr. Motley believes that, with an addition of 3½ lbs. of iron, it would bear nearly half a ton, and, by analogy, he estimates a bridge on the same construction will support from 300 to 400 tons. The strength and economy of wrought-iron bridges on this plan is certainly deserving the attention of directors of railways, who should not suffer themselves to be absolutely governed by engineers, however *eminent* they may be deemed; but they should in some measure judge for themselves, and avail themselves of all known improvements. As the subject is just now creating great interest in the public mind, we have also given a most graphic and lively account of the progress of this tunnel-bridge, under the title of "Extracts from a Note Book," which gives an accurate detailed account of this gigantic work.

In another column, will be found a report of the annual meeting of the proprietors in the Royal Santiago Mining Company, and which, we regret to say, will be found anything but encouraging. The change in the strata, detailed at the last meeting, had limited the raisings, leaving a profit on the year's workings of only 575*l.* 16s. 1d. The position of the company, with respect to the law-suit with the Cobre Company, has not by any means improved; the latter party have got possession of the Sanctuary ground, which they are working; and, although the Santiago Company are prosecuting an appeal at Madrid, from the decision of the courts at the Havana, there does not appear any symptoms of speedy settlement. It will be seen, that the directors (wisely, we think) have not declared a dividend, although possessing a fund of upwards of 43,000*l.*, as, in the present precarious situation of the company, it is certainly most prudent to husband their resources. Some lodes of promise have been opened, which hold out some expectation of improvement.

Mr. T. Duncombe, notwithstanding his having consented a fortnight since to withdraw his first Colliery Regulation, or Restriction Bill, on the express understanding, that the Government would mature an unobjectionable measure by the next session of Parliament, has had the bad taste, within a week of the expected dissolution of Parliament, to press for the second reading of a similar bill, brought in last week by Mr. Hume. On Wednesday evening he presented a petition, signed by 8600 miners in Lancashire, in favour of the measure, and said that the bill was confined to certain collieries in that county and Staffordshire, know to be "fiery" and dangerous; the object was to protect the workmen against the danger arising from blasting the coal in these mines by gunpowder. If the 5th and 6th clauses were considered too stringent, he should have no hesitation in withdrawing that portion of the bill. Now, these clauses contain the very regulations which Mr. Duncombe contends is so desirable for the well being of the colliery; and by withdrawing them, the bill absolutely becomes a nonentity. This was remarked upon by Sir George Grey, who expressed "his surprise and regret that the hon. Member had again proposed a bill of this character at so late a period of the session, and after the very decisive opinion on the subject, which the House had already pronounced. He believed, that legislation in such direction at the present moment would be exceedingly dangerous; and he had no doubt, when proper inquiry and consideration had been given to the subject, that a measure, satisfactory to all parties, and effectual in preventing the recurrence of these frightful accidents, would be introduced." Notwithstanding, it must have been evident to Mr. Duncombe, that the House was against him, the majority recommending him to withdraw his bill, and wait the introduction of the Government measure in the next session, he persisted in moving the second reading, when it was lost by a majority of 56 to 23.

In another column will be found an abstract of the report of the commissioner appointed to investigate into the present state of the colliery districts; and it will be found that in his recommendations, his opinions coincide with what we have continually advanced, of the impracticability and injurious tendency of any compulsory enactments with regard to the ventilation and working of collieries. The most beneficial results would, we have no doubt, follow a well-considered measure—in which, on the part of the owners, the size of the shafts and air-ways, in proportion to the extent of the working, and other details in ventilation, are properly regulated; and on the part of viewers, and men, the rendering certain acts criminal—such as the use of gunpowder, improper use of both candles and lamps, as the safe use of both can be properly defined, and other enactments, which might easily be carried out, without the objectionable system of inquisitorial and compulsory inspection, recommended by Mr. Duncombe. We trust such a measure will be brought forward by Government, in conjunction with the great body interested in the safety of the collieries, at an early period of the session, to which we shall look forward with much interest—a measure which will prove itself worthy the first enactments of a new Parliament.

RAILWAY IMPROVEMENTS—PLAN FOR SURMOUNTING STEEP GRADIENTS WITH LOCOMOTIVES.

As very large items in the cost of railway construction are those of cuttings and embankments, necessarily resorted to, to avoid gradients of such an incline that the adhesion of the smooth wheel to the rail will no longer prove sufficient to secure propulsion, many suggestions have been made for constructing railways on the inclines, in such manner, that a firmer adhesion may be obtained, enable a train to ascend almost any incline at a very slightly diminished speed, and thus cause a very great saving in the first cost of railways, as well as enabling the engineer to take a much more direct course between termini than can be done at present. Among these various plans is one by Mr. Nisbet, which we noticed in the *Mining Journal* of the 10th October last, and which, from its strength, simplicity, and the power obtained, appears well calculated to overcome the difficulty in question. In this plan, a ring, or circle, of strong teeth, is bolted, or affixed, to each of the sides, or to only one of the sides of each of the two driving-wheels of the locomotive engine, and which teeth take into the teeth of racks, laid down on one or both sides of the rails, wherever there is an ascent. These rack bars commence at a distance from the actual beginning of the ascent, equal at least to the greatest length of any train which may travel on the line, and increase by regular gradation, from a height only just above the ground, to the full depth of the teeth of the wheels; and they are at first bevelled off on the entering side to a sharp point, and become successively less bevelled, and broader at the points, according to the increase of height. The teeth of the wheel rings will thus have fairly entered those of the racks, and have obtained a perfect hold upon them, by the time their assistance is required to propel the locomotive up the ascent. The racks should be prolonged beyond the top of the ascent equal to the distance they preceded it, and the teeth be graduated in the same manner. On railways, intersected with many crossings, the patentee prefers using one circle of teeth only to each wheel; this he places on the inside, as there is ample room for it, where the flange passes. By another arrangement, the toothed rings are connected to the driving-wheels in such manner that, when not in use, they can, by a lever, be raised 3 or 4 in., so as to clear the rails in crossings, or any other obstructions likely to be met with. The advantages of this plan of Mr. Nisbet's are not confined to *ascending* inclines, but would be equally efficacious in retarding the tendency to too rapid *descent* down steep inclines, by which a train would be placed in imminent danger; the racks and wheels could be applied as complete and very efficient breaks. When in operation, it should be understood, that no part of the weight of the engine is borne by the rack—the driving-wheels still resting as usual entirely on the main rails; the teeth of the wheels thus taking into those of the rack with the greatest ease, and without causing the slightest jolting motion. Although the plan of toothed wheels and rails is not new—having been among the earliest of railway plans, and continued until the opening of the Liverpool and Manchester line, even on level lines—the manner in which it is here proposed to be applied, is well worthy attention, as it is evident it would answer the purpose intended, and cause a vast saving in the construction of railways.

PREPARED ANIMAL OIL FOR LUBRICATING MACHINERY.

With the rapid advance and improvement in the mechanical arts, and the construction of every description of machinery which has taken place in this country during the past half century, much difficulty has been felt from the want of an oil or lubricating substance, for the working parts of machinery, which would retain its properties under all rates of temperature, not setting in the coldest weather, and being perfectly free from any acidity, or corrosive power, by which the more delicate and polished parts of engines could suffer any injury. This great desideratum has been completely and successfully carried out by Messrs. W. Brotherton and Co., of Hungerford Wharf, who have perfected the manufacture of a pure oil, which possesses every property necessary for a perfect lubricating substance, without any of the defects of other oils, tallows, manufactured greases, &c. In addition to its good qualities for lubrication, it is perfectly free from smell—a property unknown in other oils, the effluvia from which is of such an offensive nature on board steam-packets, and which renders the atmosphere of the engineers' workshops so destructive to the health of the men employed in them; several eminent engineers, who have introduced Messrs. Brotherton's oil, have testified to the extraordinary change which has been effected, the effluvia having entirely vanished, and the air remaining pure and wholesome. This circumstance has secured its use on board the *Victoria and Albert* and *Fairy* yachts, and other Government steam-ships, and the works in Woolwich Dockyard. It is also a very superior and economical lamp oil, burning longer than the best sperm, diffusing an equal light, while the cost rather exceeds one-half only. The entire freedom from acidity and sediment of this lubricating oil, and its liquidity at all temperatures, render it of great value in the preservation of machinery; its soft body, limpid character, and a greatly reduced quantity, as compared with other oils, being only required, make it extremely economical in use—while one trial will convince any person having charge of machinery, of its advantageous and perfectly genuine character. This oil is now becoming extensively patronised, and already the proprietors are supplying the Lords of the Admiralty, for the use of her Majesty's steam navy, the Board of Ordnance, and other Government works, the principal of the great commercial steam navigation companies, several of the leading and most extensive railways, and numerous firms, as engineers, proprietors of saw-mills, manufactories, and public works, throughout the United Kingdom. They also possess testimonials from numerous large engineering and manufacturing establishments, expressing the unanimous opinion, that it is the best oil ever used for lubricating machinery, preventing the bearings getting heated, preserving the bright parts from corrosion, much cheaper than any other substance, and perfectly free from smell. We congratulate the proprietors on the result of their investigations and discovery in the manufacture of this popular oil, and strongly recommend it to the notice of all persons in charge of machinery. We would particularly call the attention of the engineers of Cornwall to this oil, which will prove so highly advantageous in the working of the gigantic machinery on the mines. All will admit that the power of an engine is assisted, or retarded, according to the quality of the lubricating material, a viscid oil, or a tenacious grease, causing a great amount of friction in the bearings, and rapid wear and tear from corrosion of the polished surfaces. The proprietors have good grounds, from nearly four years' experience in its use in marine, fixed, and locomotive engines, and every description of complex and delicate machinery, for estimating that their oil effects a saving of from 10 to 15 per cent. in power, and considerably more than that proportion in the expenses of repairs, arising from wear and tear.

The American Steam-Ship "Washington."—Our Yankee friends appear to be most unfortunate in their first attempt to compete with us in steam-boat navigation. From the vauntings in the public journals, we expected that the *Washington* was to eclipse everything that had crossed the Atlantic—in which, however, her admirers have been completely deceived. Since her crawling voyage from New York to Southampton, in which she was defeated by the *Britannia* by two days, she again set sail, homeward bound, and had reached the Needles, when it was found that her fire-bars were burnt out, and a new set were supplied, which, however, soon shared the same fate. Being considered totally unsafe to continue the voyage, the vessel's head was turned when more than 100 miles from Southampton, where she safely returned in the afternoon of Sunday last. A committee of the passengers was held on Monday, when it was unanimously agreed, that the destruction of the fire-bars was owing to the bad quality of the coals—a species of anthracite, much resembling the American, and which had destroyed two sets of fire-bars in 24 hours; the body of the furnace and the boilers were uninjured. It is but justice to Capt. Hewitt to state, that he offered to refund the passage money to every passenger, which only two accepted, and for reasons unconnected with the ship.

TRENT VALLEY RAILWAY—CAST-IRON GIRDER BRIDGES.

Capt. Coddington having completed his inspection of the bridges on the Trent Valley line, we extract some particulars from his report, relative to those constructed with cast-iron girders. Fifteen of these do not exceed 30 ft. opening; four others vary between 35 ft. and 37 ft. 6 in.; every girder was proved at the foundry—the proof always extending to half the calculated breaking weight. The deflection on the largest of these girder bridges, with a train of three of the heaviest engines coupled together, was half-an-inch. Iron girder bridges exist on every railway in the kingdom; and he considers that up to a span between 35 and 40 ft., a flat cast-iron girder, of strength calculated to the usual formula, affords security as a railway bridge. With respect to the compound girders, similar to those over the Dee at Chester, there are six bridges, with girders in three castings, bolted together at the flanges, clipped underneath, and strengthened by massive wrought-iron rods, forming an inverted truss. There are two over the Trent and Mersey Canal—span, 54 ft. 3 in.; one over the turnpike-road, 57 ft.; one over the Coventry Canal, 60 ft.; one over the Oxford Canal, 44 ft.; and one over the River Tame, 70 ft. span. The latter bridge has had a double row of piles driven in the bed of the river under each of the joining flanges of the girders; these piles are connected at the heads by cup sills, extending under the girders, and the interval between them and the girders is made good with wedges—thus dividing each span into three spans, and covered by a girder calculated equal to three times the span—he has no doubt, therefore, of the strength and efficiency of this bridge. The other five range between 50 and 60 ft.; and assuming that these compound girders, including their tension rods, are only half more in strength than the calculated beam, they fully come up to the proportions hitherto considered safe by the most eminent engineers. In testing these girders, there was but a deflection of three-quarters of an inch on a span of 60 ft. In answer to a question from the commissioners, after perusing the report, as to his decided opinion of the safety of opening the Trent Valley line with the existing bridges, he says—"The bridges on the Trent Valley Railway, though constructed on similar principles to that over the Dee cannot be considered as similar bridges; the proportions of the top and bottom flanges differ materially, and their calculated strength (as far as can be at present calculated) exceeds that of the Dee by a proportion of from 50 to 100 per cent.; the proportion between the central load, and breaking weight of the Dee bridge, being lower than as one to two—while the Trent Valley bridges range from 1 to 3 up to 1 to 4¾. The Dee bridge was a great increase in span of cast-iron girders, and it has failed; its failure opens up the question as to whether the limit to such constructions has not been passed, or whether the failure has arisen from deficient strength in that individual bridge. In the same manner that I consider experience to have proved the sufficiency of a simple girder up to 40 ft., I consider it has also proved the sufficiency of the compound girders up to 70 ft." The line is expected to be open for goods early in August; and for passengers on the 1st of September next.

THE LATE ACCIDENT ON THE DEE BRIDGE.

Mr. Walker and Captain Simmons, the Government engineers appointed by the Railway Commissioners to inspect and report on the causes of the late melancholy accident, have completed their report: it gives an elaborate result of their surveys, and many interesting details, illustrated by diagrams, showing the order of the train and the position of the passengers—the deflection of the girders, and drawings of the bridge, with its divers appointments, with the observations and experiments of the commissioners. Waiving these as too minute, tedious, and technical for these columns, we digest these details into an abstract of the following conclusions at which these gentlemen have arrived:

That the bridge was of sufficient strength, if the cast and wrought-iron be supposed to act together—each taking its equal proportion of the strain.

That there is great difficulty in ensuring the joint-action; and that, it this is a part of the principle of the bridge, we do not approve it.

That neither the wrought nor the cast-iron, taken separately, was sufficient for perfect stability; and that, to have ensured this, the cast-iron girders alone should have been of sufficient strength to carry the whole weight, with an ample allowance for the various circumstances (some of them peculiar to this bridge) which we have explained.

That, with the exception of the bends, or warps, in the top flanges, the castings are of good quality.

That the wrought-iron is also of good quality.

That the stone-work of the piers and abutments is good, and in no way contributed to the failure.

We come now to the question, what was the immediate cause of the accident?

As the bridge has carried as great, or greater, loads before, the suggestion that there was something peculiar in this case, as the end of a rail having projected from the straight line, and been struck by the engine, or the tender having got off the line and struck the girder latterally, is not improbable. The engineers who were called by the railway company, considered that the breaking of one leaf of the wrought-iron that was next the tender, the piece that was struck out of the girder, and the damage to the abutment wall, are all proof of the fact, that the accident was caused by the tender having got off the line, and broken the girder by a heavy lateral blow. We refer to the evidence of Mr. Stephenson, Mr. Locke, Mr. Vignoles, and Mr. Gooch, who were also of opinion, that the strength of the girders was sufficient. As to this latter point, we have already stated the principles upon which alone this conclusion could have been arrived at, and our own opinion. As to the tender, or the carriage immediately behind it, having got off the railway and damaged the abutment walls, there is no doubt; and if the tender struck the side of the girder, when the latter was under a great strain, a fracture was the probable consequence. This is on the presumption of the tender having got off the line from some other cause than the breaking of the girder.

Our own decided opinion, formed from the statement we have made as to the strength of the girder, and from the position in which the broken pieces were found, the two halves being each in a straight line, or nearly so, but at an angle with each other, is, that the first fracture took place in the centre of the girder, and not in the end which rested on the abutment. We may adduce, as a corroboration of this last view, the circumstance of an addition of 18 tons of stone having been made to the permanent weight of the bridge immediately before the accident; and the fact that, when a weight, partly permanent and partly passing, but together forming a very considerable proportion of the breaking weight of the girder, is in continued operation, flat girders of cast-iron suffer injury, and their strength becomes reduced; and that if, when this has taken place, the *momentum* of the passing weight be increased by any irregularity in the rails, or in the motion of the engine, to which the best made and managed railways are subject, a fracture is likely to be the consequence.

It is proper to name, that Mr. Robert Stephenson stated in his evidence, that he had erected a number of bridges on the same principle as this, and that this was the first failure. We have not examined these bridges: they are stated to be all of less span than the Chester bridge; but that the dimensions of the parts are proportionably less; and it may, perhaps, be argued from the above numerous examples, and the opinions of eminent engineers opposed by this one failure, that, in considering the weakness of the girder to be the cause of the failure in the present case, we are mistaken and unnecessarily cautious in the objections we entertain and have expressed, as to the principles of this bridge and its security; but as we entertain these opinions very decidedly, it is our duty (by no means an agreeable one) to express them.

The following are copies of some important minutes of the commissioners accompanying the report, dated 29th June:—

The Commissioners of Railways, after considering this report, are of opinion that it is their duty to call the attention of her Majesty's Government to the uncertainty which at present exists respecting the conditions to be complied with in employing iron, but more particularly cast-iron, in engineering works. Although the facts which have been collected, and the principles which are acknowledged, may have proved sufficient for the guidance of engineers in the application of iron to works which are not exposed to an action differing materially from the steady load, yet there appears to be great doubt whether the experimental data and the theoretical principles at present known are adequate to guide them in designing iron bridges, when these are to be traversed by loads of extraordinary weight with great velocities. When exposed to the rapid motion of railway trains the structure should be capable of sustaining, without permanent injury to any part, the concussions which any irregularity may occasion, and the vibratory action which a rapid alternating change of condition must produce. The Commissioners have reason to believe that much difference of opinion exists among the most eminent engineers of the present day, as to the proper form and dimensions to be given to railway girders of iron, to resist the combined action of the several forces to which they are subject during the transit of trains; and until the subject has been further investigated, they cannot be considered as having sufficient data for their secure guidance.

The inquiries which are necessary on this subject demand the combined attention of scientific men and practical engineers, and the commissioners believe that this object may be most effectually obtained by means of a commission appointed by the Government.

To the commissioners appointed, every facility for experiments on an extensive scale should be afforded, and they should be requested to endeavour to arrive at such principles, and to form such rules, as may enable the engineer and the mechanic, in their respective spheres, to apply the metal with confidence. Another subject that might advantageously engage the attention of the commission, is the action which takes place under varying circumstances in bridges formed by adding tension bars to cast-iron beams, as in the bridge over the Dee, at Chester.—Let a copy of this minute be transmitted to the Lords Commissioners of the Treasury.

The Commissioners of railways having had their attention directed to the fatal accident which has recently occurred at the Dee-bridge, near Chester, on which a special report has been made to them, have necessarily been led to consider how far the inspection by their officers of new lines of railway, required by law previously to their being opened for public use, may be considered a guarantee for the security of railway structures. The Act of Parliament under which these inspections are made, enables the commissioners to disallow the opening of a railway, if their inspecting officer report that the line cannot be opened with safety to the public, on account of the incompleteness of the works, or the insufficiency of the establishment, and it is important that the public should understand to what extent, and upon what points, it is within the power of the inspecting officer to form an opinion on which reliance can be placed.

The inspector can ascertain whether the railway has been constructed in accordance with the plans and sections approved by the Legislature; he can judge of the design of the works, of the state of the earthworks and permanent way, of the fences, of the signals, and of the precautions at level crossings; and he can form a general opinion of the sufficiency, at the time of inspection, of the working stock and the establishment provided; but with respect to retaining walls, bridges, viaducts, and tunnels, he can only see the surface of each work. He may inquire respecting the foundations and other details of such works, and he may subject bridges to certain tests, but the responsibility of the execution of works, the materials of which are not exposed to view, must rest with their company and their engineer. As to such portions of the structure no one can form a satisfactory opinion, who has not been present during the actual execution of the works, or constantly inspected them in their progress. The result of any attempt at such a degree of inspection would, in fact, amount to a transfer of the whole responsibility of the design and execution of the works from the companies to the Government, which can never have been contemplated."

Railway Openings.—We understand the Cambridge and St. Ives extension of the Eastern Counties line will be opened about the 26 of next month, and that portion of the East Anglican line, from St. Ives to Huntingdon, about the 15th. A further extension of the South Devon line, from Newton to Totnes, on which the gradients are extremely heavy, will be opened as a locomotive line on Tuesday next—the long-promised atmospheric opening of this line being again deferred. The Eastern Union and Hadleigh Junction line is to open for goods traffic on 1st of Aug., and for passengers on the 15th.

PROGRESS OF FRENCH MINING INDUSTRY.

[FROM OUR PARIS CORRESPONDENT.]

Naturally the attention of the public is almost wholly absorbed by the prosecution, for corruption, of Teste, Cubières, and Parmentier, before the Court of Peers; and the attention of the mining world is still more particularly fixed on the matter, for it has a peculiar interest in its eyes, inasmuch as the corruption took place with respect to the concession of a mine. The facts of the case are very simple:—A mine of rock salt was discovered near some coal pits, occupied by a company at Gouhenans. Parmentier, as the chief shareholder of the coal pits, remodelled the company, with the view of working the rock salt; and he then, in order to obtain the concession of the mine of rock salt from the Government, induced Cubières, a Peer of France, a general and an ex-Minister, to corrupt Teste, who was at that time Minister of Public Works. The concession was obtained, though it was not for so great an extent of surface as the company had desired; and Teste then pocketted about 4000*l.* The case has been fully brought home to the man Teste, and he has, indeed, confessed his guilt. So crushed was he by this exposure of his dishonesty, that he actually attempted to commit suicide. Sentence has not yet been passed on him, or his accomplices; but they will, of course, be punished with all the severity of the law. Apart from the moral iniquity of a Minister selling the privileges which it is his duty to bestow gratuitously, there is something particularly scandalous in making *mining* enterprises the subject of corruption; for the spirit of mining enterprise is not yet sufficiently developed in this country, to warrant its being made to bear the burden of heavy money sacrifices.

The case has not unnaturally given rise to the suspicion that the mines of Gouhenans are not the only ones with respect to which corruption has been practised. Strange rumours are afloat; and among them is one to the effect, that certain concessions of iron and copper mines in Algeria could only be obtained at the expense of a sacrifice of about 80,000*l.*, to a man who is now a Minister of the Crown. But these rumours do not repose on facts that are publicly known; and as the parties whom they affect will, of course, maintain silence, there is every probability that they will be allowed to die away.

The prosecution of Teste and his accomplices has exposed the stupid system by which mines, like everything else, is controlled in this country by Government functionaries. All mines, you are aware, belong to the Government, and are conceded for a trifling rent to companies. This necessitates the maintenance of a staff of engineers, clerks, superintendents, prefects, subprefects, and, heaven knows! what besides, each and all of whom have something to do, and an immense deal to say, before any company or private individual can obtain the necessary permission to work a mine. The consequence is, that there are months and months of delay, heaps on heaps of useless writing, and no end to useless talk. And as each of these useless officials, though he does no good, has the means of doing an immense deal of harm, it is not surprising that the unfortunate applicants for the concession of a mine should try the effect of a little corruption to hasten on the affair, or to keep off competitors. To blame the men who corrupt is childish, for they are warranted in promoting their own interests in such a way—there being really no natural immorality, if I may use such a phrase, in it; whilst considering how very badly the officials are paid, it is not surprising that they allow themselves to be corrupted. The fault is in the attrocious bureau system of France; but the system is precisely the last thing which the Government will think of meddling with, because it affords them the means of finding petty places for their partisans, and for the "conscientious knaves," who vote for them at elections.

The past week has been a very dull one in the mining world. The only matter that attracts a little interest, next to the great Gouhenans affair, is the case of the Great Coal Company of the Loire. The local newspapers continue to wage war upon the company. One of the St. Etienne journals, which formerly defended it, has just passed into the enemy's camp. The Municipal Council is as stubbornly opposed to it as ever. The Deputies of St. Etienne are entrusted with a petition against the company, and signed by the majority of the inhabitants of the town; and they have given notice in the Chamber, that in the course of a very short time they will present their petition, and make their long-threatened attack on the devoted company. Meanwhile, the company continues its career calmly and philosophically. I do not say it is indifferent to the attacks to which it is subjected, but it certainly gives itself no trouble to reply. Before the Chamber of Deputies, however, it will, probably, make a bold stand, for it is there that its battle has to be fought, and I am informed, that it feels very confident of gaining the victory. The question between the company and the St. Etienne people lies in a nut-shell. "The greater part of the immense coal-fields of the department of the Loire—the great coal district of France—are in your hands, and that constitutes a monopoly dangerous to us and the public." Such is the cry of St. Etienne. "But (urges the company) we can work those vast coal-fields cheaper than the small companies and the private individuals, to whom they were originally conceded, were able to do; and, as we can work cheaper, we can sell cheaper, which is clearly to your benefit." "True (says St. Etienne), but then how can I tell that you will not make me pay a good deal more for my coals than I ought to pay; and that, with your monopoly, you will not cut down the miners' wages to a figure too low to enable them to exist." "Oh! as to that (replies the company) we will take a formal engagement to fix a *maximum* of the selling price of coal, and a *minimum* of the miners' wages; and the Government will take care to see that we do not exceed the one, and do not fall short of the other—and, moreover, there is no danger that the miners will be thrown out of work, for the Government has already pledged itself to make us work every one of the concessions we hold, to the full limits originally fixed—so that, whether we sell coal or not, the pits must be worked, and the men employed." All that, however, does not satisfy St. Etienne, and so it cries and bawls for the dissolution of the great company, and the restoration of things as they were.

In justice to the opponents of the company, it should be added, that they allege that the company's monopoly has already increased the price of coal from 60 to 80 per cent. I think, however, there must be great exaggeration. The price of coal may, nevertheless, have increased; but may it not be owing to the extraordinary demand which exists, and in nowise to the monopoly?

One of the provincial journals announced last week, that the Government had determined on prosecuting the company for an alleged infringement of the law relative to coalitions and monopolies, but I have reason to believe the statement erroneous. It is not likely that any prosecution will be made until after the whole affair shall have undergone discussion in the Chamber, and then only in the event of the Chamber showing itself decidedly hostile to the company—a thing which, I think, is hardly to be expected.

In addition to the contracts already announced to be received by the Minister of Marine, are others for 30,000 kilogrammes of zinc for Cherbourg on 7th August; 45,000 kilogrammes of coal for Bordeaux the 30th inst.; 150,000 kilogrammes of French cast-iron for Lorient on 7th Aug.

St. Dizier, 8th July:—The demand for *fers* is still feeble, and confined to some assortments. In some establishments the price of *fers battus* has declined 10 fr.; bargains have been made at 370 fr. and 380 fr. *Fers laminés* are still quoted at 380 fr. and 385 fr., delivered at St. Dizier; and at 400 fr. delivered at Paris. At Paris, prices keep up, notwithstanding the stagnation of affairs. We have not yet received intelligence respecting the iron fair at Châlons-sur-Saone, on which much opinion was entertained.

The newspapers mention that a mine of rock salt, 400 ft. in depth, has been discovered in the Duchy of Brunswick, near the capital. It is said to be 1800 ft. below the surface, and of great richness.—*Paris, Wednesday.*

BELGIUM.—There is nothing stirring of importance in connection with mining matters in this country. The Hauts Fourneaux of Sclessin, near Leige, are paying 50 fr. for interest to 30th June, and 24 fr. for dividend. The general assembly of the shareholders of the Hants Forneaux, &c., of Marcenille and Conillet, will be held on 12th of August. A few days ago, another iron steamer was launched from Cockerill's establishment for the Dover and Ostend stations. The metallurgic establishments intend to make a great show at the *Exposition de l'Industrie*. Cockerill's have sent a round iron bar *laminé* a ton weight, and 20 ft. long—said to be the largest ever made in Belgium. Derome, Cail, and Co., send a splendid steam-engine.—*Brussels, Tuesday.*

FOREIGN GRANITE.—The vessel *Fanny*, arrived in the Surrey Canal, from Gull Island, west coast of Africa, has brought an entire cargo, comprising 300 tons weight of granite. Large quantities of granite, in a broken, as well as whole, state, are imported from Guernsey, and also from Normandy, but we have not met with an importation of granite on a previous occasion from any place on the African coast, and this notice of the arrival will not be devoid of interest.

THE MINING DISTRICTS.

GENERAL REPORT ON THEIR PRESENT STATE AND PROSPECTS.

By the 5th and 6th Vic., cap. 99, powers were given to the Secretary of State for the Home Department to appoint a commissioner for the purpose of inquiring into the operation of that Act, and the state of the population in the mining districts. Mr. Seymour Tremenheere was appointed the Commissioner in 1843, and we have now before us his second report on the above subject. After alluding to his former report, he states, that in the South Wales district some convictions had taken place for employing females underground; but the disposition on the part of the women among the colliery population is so strong, as to require a constable to watch the suspected pits. The practice of paying wages at public-houses—an offence under the Act—also requires the vigilance of the law, as the practice is much encouraged by the contractors, who raise the coal and ironstone, as they generally either keep a beer-house themselves, or have relatives who do; and the co-operation of the proprietors of two of the largest iron-works (the Dowlais and Cyfarthfa) promised to go far to mitigate the evil. The employment of boys under 10 years of age still exists in all the mineral districts to a considerable extent, and the Commissioner recommends that greater powers be given than the Act at present contains, and that no boy who has arrived at the age of 10 years shall be allowed to work in a coal mine, unless he can produce a certificate, proving that he has attended a school, or schools, for 48 weeks altogether, from the age of seven years.

NORTHUMBERLAND AND DURHAM.—The Commissioner entered upon the question with nearly every gentleman engaged in managing the most important collieries, and found them, without exception, favourable to any plan, simple in detail and easy to carry into effect; and there is a very general disposition to receive any measure favourably, which would compel colliers to send their sons to school. In Scotland, also, the largest proprietors are exerting themselves to improve the morals of the men and instruct the children. The combinations of the workmen has done much injury to the iron manufacture, thrown an extra charge upon capital of one-third, and deprived the men, on an average, of at least 5s. per week. The following comparison will show the competition the English manufacturer has to contend with:—A knife manufactured at Solingen, Rhenish Prussia, at 5s. 3d. per dozen, would cost at Sheffield 9s. 2d.; scissors, manufactured in Prussia at 7s. 1d., would cost 12s. per gross; and common gimblets, manufactured at Hamburgh, which cost at Birmingham, including duty and carriage, 5s. 6d. per gross, could not be made there under 7s. 6d.; and an ornamental cast of the statue of Guttemburgh, made at Hamburgh, price in Birmingham 9s. 6d., would cost to make at that place 25s. Three or four years ago, one-half the produce of the screw trade, in which there are in Birmingham about six makers, went to America; while at present only about 5 per cent. finds its way there. In the counties of Northumberland and Durham the capital employed, in 1846, is estimated at 10,000,000*l.*, employing pumping-engines of 10,919-horse power, and drawing engines 8285 horses, capable of raising 57,713 tons of coal daily, or 15,005,000 tons per annum, of 260 days; and the total vend of coal has increased from 2,520,075 tons in 1800, to 6,790,993 tons in 1845.

YORKSHIRE.—The colliery population here has been conspicuous for the ill effects of the employment of females underground; a marked improvement is in progress—the women have been excluded from the pit banks, as well as from the pits, and they are now employed at home looking after their children, and other household affairs; great improvement has also taken place in the means of education.

SOUTH STAFFORDSHIRE.—Efforts are making to supply in some degree the deficiencies in the means of education, which have been so often shown to exist among the mining population of this district. The disposition of the leading employers is evidently to proceed steadily in this work. The children are estimated at 30,587 under 15 years of age; only one-fourth of this number attend schools of any kind, and more than one-half are attending Sunday schools, leaving the other half, or, in round numbers, 15,000 children, in one district, only a few miles square, growing up without any apparent instruction whatever. A proof of the growing improvement among the colliery population in this district is, the fact that the deposits in the Bilston Savings Bank have increased from 510*l.* in 1839, to 8576*l.* in 1846. The number of persons employed in the coal trade in Durham and Northumberland is—on the Tyne, 6515; in collieries on the River Wear, 13,172; and on the Tees, 4211—total, 33,898.

VENTILATION OF COLLIERIES.—This subject having of late attracted much painful notice, in consequence of the numerous explosions which have taken place, accompanied with great loss of human life, Mr. Tremenheere states, that he has availed himself of every possible opportunity of gathering the opinions of owners and managers of collieries, viewers, mining engineers, and other persons possessing scientific or practical knowledge, or both, as to whether it might be possible, by any aid or interposition on the part of Government, to diminish the risk of these explosions which cause such frightful sacrifice. The result of those inquiries have led him to adopt the opinion, that the only kind of inspection on the part of Government, which would not be liable to grave objections, would be inspection without compulsory powers of interference; and that such inspection, conducted by gentlemen uniting scientific with practical knowledge, would tend to diminish the frequency of fatal colliery explosions. The circumstances of individual collieries must vary so greatly, and the conditions under which they can be profitably worked are so numerous, depending upon the position and value of the coal, the tenure of the person working it, amount of dues or royalties, command of markets, &c., that an expense for the purposes of ventilation, which might be easily borne by one coal work, might render a neighbouring one profitless; and to confer on an officer of Government a power of compelling the proprietors to conform to particular details, in the management of ventilation, would be to transfer the responsibility from the owners to Government; but *inspection, without compulsory powers of interference*, he thinks would be useful and yet unobjectionable. A surveyor of mines, being appointed to a particular district, would proceed, perhaps, as follows:—He would go through each colliery with the mining engineer, examine the course of the air, its volume, the rapidity of its current, its condition as to purity, or otherwise, the contrivances for directing it in its proper channels, width and size of airways, and other details. When he discovered arrangements betokening either carelessness or ignorance, and, consequently, exposing the lives of the men to unnecessary risk, he would suggest such alterations as would remedy the evil; his remarks, in the first instance, being addressed as confidential communications to the proprietor, or manager, of the colliery. A general report might afterwards be made of the state of ventilation in the district, which need not necessarily be made public. The Commissioner has no hesitation in saying, that among the great number of persons engaged as proprietors, or lessees in working, or as mining engineers, agents, &c., with whom he has conversed in all the chief districts, he has met with none who would not receive cordially and thankfully any remarks that a gentleman of ability and discretion might feel it incumbent on him to make. He suggests that it should be compulsory to report all explosions to the Secretary of State, as in the course of his inquiries he frequently found that fatal casualties had occurred, which were never heard of beyond the locality, and which might probably have afforded good grounds for investigation on the part of Government, had the circumstances come to light. The Commissioner then describes the plan of ventilation adopted and recommended by Mr. Gibbons; he had an interview with that gentleman, and found him decidedly adverse to compulsory interference; but, in common with other leading proprietors of collieries, with whom he communicated, he is disposed to anticipate very useful results from Government inspection without compulsory powers, but designed to diffuse information and stimulate improvement.

EMPLOYMENT OF FEMALES UNDERGROUND.—Several convictions have been obtained against owners and managers of collieries for illegally persisting in the employment of females. The colliery population in the neighbourhood of Wigan and Chorley pertinaciously adhere to the practice, where they think they can evade the law; and in this district they seem sadly behind the rest of the community in civilised ideas and habits. This is also one of the few remaining where owners are found who are willing to connive at the employment of females in their collieries; and this unfairness to other proprietors, who obey the law, is cause of well-founded complaint; constables are appointed to watch the pits. In Scotland, the practice has been completely put an end to; and, during the year, only one case for prosecution occurred, which was at a colliery, near Allon.

COPPER BOATS.—After the engagement which took place against the Cochin Chinese, the sailors of the *Victorieuse* perceived several small boats floating about. They were picked up, and found to be formed of thin sheets of copper, without any mixture of wood in their construction. They are to be sent home, and placed in the Naval Museum.—*French Paper.*

THE SILVER AND GOLD MINES OF THE NEW WORLD.

SECOND PART.—ON THE FUTURE PROSPECTS OF THE MINES OF AMERICA, COMPARED WITH THOSE OF EUROPE.—NO. II.

If we admit the wear at 1 per 360, as adopted by Mr. Jacob, and in leaving out, as he has done, every other cause of disappearance, we shall find that 1,000,000,000 would be reduced after a century to 755,000,000, after 500 years to 240,000,000, after 1000 years to 60,000,000. Thus, with the wear of $\frac{1}{360}$th, a mass of specie, amounting to 5,000,000,000 under Constantine, and which should not have been renewed by the produce of mines, would not have been more than 300,000,000 at the time of Philippe-Bel. It will also be seen that already, at the period at which we have arrived, the mass of treasure furnished by the new continent must have sustained a certain loss, for the production of the mines of America was considerable two centuries ago—Potosi alone had then yielded prodigious sums. What precedes explains how it was that gold and silver had become extremely rare at the period of the discovery of America, after having existed in great abundance in the capital of the Roman Empire. Most articles were then exchanged for a quantity of precious metal much inferior to what was the equivalent of them at Rome or in Greece. This is what incontestibly results from the investigations of modern *savans*, particularly of M. Letrone, M. Boekh, and M. Dureau de la Malle, although these eminent authors do not agree as to the terms. A small quantity of silver purchased a great deal of labour, and the smallest parcel of gold was wealth. This extreme rarity of the precious metals explains the surprise and the joy which the Spaniards entertained, when on disembarking at Haiti, and on other parts of the New World, they found that the savage tribes employed gold in personal ornaments, or in little utensils, as fish-hooks. A country in which people went fishing with gold hooks! What impression such a statement must have created in Europe! Yet Haiti had very little gold. The natives, seduced by the splendour of this metal, wore it in little plates suspended from the nose, ornamented the forehead and the arms; and, if they used it for fish-hooks, it was because there was a scarcity of other metals that would have answered the same purpose. The *conquisatadores* felt veritable enthusiasm when they saw the really magnificent presents of Montezuma exposed before them, and when they entered the palaces and temples of Peru, which were splendid with gold; but when they saw Potosi and its rain of silver, they felt the very exaltation of delirium. This time, as we stated in the first part of our paper on the Silver and Gold Mines, they had discovered infinite wealth. It was only from this moment that the price of things in Europe underwent great changes. The spoils of Montezuma and of the Incas, which have been so much vaunted, were insufficient to produce anything resembling a revolution in the comparative value of articles and of the precious metals. All the gold which the Pizarras and Almagro took from the temples of the Sun was only of the value of 800,000*l.*, less than 12,000 lbs. Supposing that it was all in gold*, it would have made a mass of only one-third of a cubic metre. All the booty made at Tenochtitelan (Mexico), after the memorable siege sustained by the valiant Aztèques against Cortez, would not make, according to the estimate of Bemal Diaz, which is double that of Cortez himself, more than 1125 kils.†—in volume it would not be two-thirds of an hectolitre. Ferdinand the Catholic, who lived 10 years longer than Columbus, and who, consequently, reigned 24 years after the discovery, died so poor that there was great difficulty in providing for his funeral, and in giving mourning suits to a handful of servants. Charles Quint, his successor, who reigned during the period in which the magnificent empires of Mexico and Peru were added to the crown of Spain, frequently experienced, according to M. Ranke, great penury. But the discovery of Potosi, which dates from the middle of the sixteenth century (1545), brought at last an abundance of silver, which had been hoped for till then, although people had flattered themselves a thousand times that they possessed it. From this moment the prices of all things were changed, and the historians of the period record the bitter complaints of some, the satisfaction and confidence of others, and the astonishment of all, who knew not to what cause to attribute this revolution. It was spoken of everywhere, even in the pulpit, and was the subject of sermons preached before kings themselves—witness the sermons of Bishop Latimer, in the presence of Edward VI. and his court. The same quantity of silver commanded less and less labour, or was exchanged against a proportion of products which was always less. It was thus that the hectolitre of wheat, which had been purchased for from 14 to 18 *grammes* of silver, was sold almost immediately for 40, and afterwards at 50 and 60; at present, and for more than half a century, it has been paid 90. All the fixed rents, expressed by a determined quantity of silver, became easier to bear by him who paid, and gave less to him who received. The man who one day was an opulent lord, became the day after a poor devil in distress—hence a political effect caused by the change in the position of those who paid rents, and those who received, such change being to the advantage of the former. In this point of view the discovery of America aided the emancipation of the third estate, and prepared its accession to power, and it was not only in that manner that it rendered it assistance—still this particular influence only manifested itself powerfully in places in which rents were paid in precious metals, and not in kind. In England, where the agricultural class commonly paid the proprietors of soil in money, and where they had very long leases, the effect must have been more prompt and more intense than in the continental countries in which the system of a division of profits between landowner and occupier prevailed.

The discovery of America has also changed the relation of one of the precious metals with respect to the other. Gold has become relatively dearer. The relative value of gold and silver depends on several causes—on the cost of the production, and at a given time the supply of it, which is offered in comparison to the demand. When commercial relations are much restrained, the relation of gold to silver may vary rapidly and greatly—because, then, a quantity somewhat considerable, thrown suddenly into circulation, does not immediately find its level. It was from this reason that the gold brought by Cæsar from the Gauls, or taken by him from the Treasury of the Republic, in which the Senate, from prudence, had amassed a large quantity for the wants of the State, caused the value of the metal to fall so low, that it was not worth more than nine times as much as silver; a little before, after the taking of Syracuse, the relation had been, exceptionally, a little more than 17. The common proportion at that period was 12. The conquest of Alexander, which caused immense treasures to be brought from the coffers of the princes of Asia, in which till then they had been buried, lowered for almost a century the relation to 10. It was this relation of 10 that prevailed in Asia.

Before the discovery of the New World, gold in Europe was worth about 10 times as much as silver. America has furnished so much of this last metal, that the relative value of gold has successively increased. It varied between $10\frac{7}{15}$ and 12 during the century which followed the discovery. In the last two centuries it floated between 14 and 16; for several years past it has maintained itself between $15\frac{1}{2}$ and $15\frac{3}{4}$. From these variations a practical consequence may be deduced—every monetary system, which pretends to fix an absolute relation between the two metals, is vicious. There must be one of two things: either one metal must form the legal money, and that is what England has caused to be done in choosing gold; or, if it be thought right to allow both, it is necessary that they be independent one of another, and that each of the two monetary unities be in a simple relation with the unity of weight. Thus, as a franc is in weight 5 grammes of silver to the standard of nine-tenths of pure silver; the piece of gold ought to have a weight of 5 or 10 grammes at the same standard, inasmuch as we have adopted the decimal system in an absolute manner. Usage would afterwards have settled, at every moment and for every transaction, the relation of one of the metals to the other: contracts would have to specify separately the conventions of the parties in one or other metal. By having determined that a piece of gold, containing 5 grammes 806 millièmes of pure metal, should be 20 francs, after having defined the franc to be $4\frac{1}{2}$ grammes of pure silver, the French Government has forced gold to fly from the French soil. The Spaniards were better advised when they took a determined weight as the unity of both gold and silver money. They put $8\frac{1}{2}$ piastres of silver in the Spanish marc, and the weight of the quadruple in gold is the same as that of the piastre.

In Asia the relation of the two metals is quite different. In Japan, where gold is most abundant, it is from 8 or 9 to 1. In China it is higher; at the commencement of the century it was from 12 to 13, inferior to what it is in Europe—but at present it is at about the same point as in France.

One must be much struck at what the production of gold in the New World has become since the end of the last century. From 14,000 to 15,000 kilogrammes represent about three quarters of a cubic metre, or a

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* In reality there was a certain quantity silver—about one-seventh of the value.

† See the discussion of M. de Humboldt on this subject, in the *Nouvelle Espagne*, vol. iii. page 421.

sphere of about 56 centimetres in diameter. This diminution has taken place in Brazil. The production of gold in the New World is now very little more than what that empire alone yielded 90 years ago. During the first quarter, and, probably, the first half of the sixteenth century, the mass of gold was greater, I do not say in weight, but in value. The conquerors made booty of a great deal of gold which the natives had gathered on the surface of the soil, where it existed in the native state, and with which they had ornamented the temples of their gods and the palaces of their princes. What they brought of it to Europe caused universal astonishment. From 1645, however, to the commencement of the seventeenth century, silver obtained the superiority in a remarkable manner.

[*To be continued in next week's Mining Journal.*]

THE COLLIERIES BILL.

In the House of Commons, on Wednesday evening, Mr. T. Duncombe, after presenting a petition signed by 8000 persons in favour of this bill, said, that the House was aware that a larger bill upon this subject had been rejected on a former occasion, and that the present measure applied only to fiery collieries, in Staffordshire and Lancashire. In these counties safety lamps were always obliged to be used, but, strange to say, the use of gunpowder was permitted. The system of blasting with gunpowder was followed in the north of England without danger, but in mines where sulphur was always floating about it must be obvious to everybody that blasting with gunpowder was a very dangerous proceeding. The bill was divided into two parts. The first four clauses gave power to the Secretary of State to demand information as to the state of the mines, and to require a map thereof; and when information was given to him that a mine was dangerous, he was empowered to send down inspectors to view it, and to report to him their opinion. The fifth and six clauses related to the use of gunpowder. If, however, these clauses were supposed to go too far, he was ready to accept the bill without them. He hoped the House would agree to the second reading, and that the house would not separate without endeavouring to protect the lives of a very industrious portion of the community. He accordingly moved that the bill be read a second time.

Sir G. Grey regretted that the hon. gentleman should again bring forward a measure on this subject after what had passed the other day, and after an expression of opinion on the part of the House that some further experience was necessary before this subject was fit for legislation. He must observe that he saw no provisions in the bill which restricted its operation to the fiery collieries only. The Secretary of State had always the power of inspecting mines when an accident had occurred; and while the whole subject was still under inquiry, he considered it most inexpedient to proceed with the present bill. He, therefore, moved as an amendment that it be read a second time that day three months

After a few words from Mr. W. Patten in opposition to the bill, and from Mr. Hutt, who expressed a hope that it would be withdrawn,

Mr. Wakley said, he was convinced that no bill for the regulation of collieries would be satisfactory to their owners. He hoped the bill might be allowed to be read a second time, and then his honourable friend might be enabled to make some propositions that would be palatable to the House.

Mr. Liddell took leave, on the part of the coal-owners, to repel the imputation which had been cast upon them by the honourable Member who had spoken last. He agreed that some Government inspection would be necessary, and he was satisfied that no objection would be entertained to any well-considered mode of inspection, if conducted upon the responsibility of Government. The present bill, however, was so objectionable that he must oppose it altogeteer.

Mr. Bernal thought, that if a guarantee were given by the Government for the introduction of a new bill next session, his honourable friend, the Member for Finsbury, would not press his motion.

Mr. Hindley, although favourable to the appointment of inspectors, and to inquiry into causes of accidents, could not go the length of the bill.

Mr. Ferrand was of opinion, that if the Legislature did not interfere for the protection of the poor colliers, the Secretary of State must not be surprised, if he were called upon during the recess, to send military down to the north, to preserve the public peace.

After a few words from Mr. R. Yorke, Mr. Newdegate said, that the circumstances of different collieries were so different, that no one bill could embrace them all.

Mr. Fox Maule deprecated anything like rash interference with our collieries. The House that had passed a 10 hour's bill could not be deemed indifferent to the interests of the working classes.—After a short conversation, in which Mr. Foster and Mr. Trelawney joined, Mr Bouverie thought that the French practice of making the proprietors of works responsible for injuries sustained by the men in their employment, would be the best way of obtaining the object of the hon. gentleman.

Mr. Duncombe thanked the honourable Member for his suggestion. There was no hope of Government taking up the subject. The only objections to the bill had been objections of detail, and he would throw upon the Government and the House the responsibility of any loss of life which might occur in the recess, were the measure he now proposed to be rejected.—The house then divided, when the numbers were—For the bill, 23; against it, 56: majority against the bill, 33.

Electric Telegraph Company.—This company is now erecting spacious premises in Lothbury, where the wires from the different railway stations will be brought under the streets to their several departments, and where the public will have access for the communication of messages with the principal towns of the kingdom. From an inspection, at the temporary offices of the company in the Strand, of the instruments and apparatus constructed for the various operations connected with the transmission of intelligence, and the contemplated schemes, when brought fully into play, they promise to realise advantages to the mercantile world, as well as to private convenience, the extent of which defies all calculation. They have an apparatus by which it is proposed to furnish the principal subscription rooms of the towns within the compass of the telegraphs, either laid, or laying down, with daily Ship, Share, and Stock Exchange Lists, Prices Current, and all other fluctuating news of a like kind. The machine, by which this is to be effected, is capable of transmitting from 1000 to 2000 letters a minute. It consists of a metal roller, upon which presses a spring in connection with the wire extended between the two given points of communication; the roller being attached to one pole of the battery, and the earth to the other, the electric current flows continuously down the wire—but if a slip of paper, which is a nonconductor, be placed between, with a series of holes punched out upon it, as long as the springs are separated from the roller by the paper no current passes, but the paper being drawn rapidly along as the springs come in contact with the cylinder by passing a hole, a current of electricity traverses the wire, producing upon the paper at the other end an analogous black mark. These rollers being set in motion by machinery so as to pass 3000 or 4000 perforations a minute, arranged according to a system, beneath the spring, a lengthened correspondence may be completed in a very short time. The machines, it is said, will be so arranged, that the message will fly from one to the other, so as to transmit to more than one place at the same moment. That all this will be accomplished there cannot be a shadow of doubt, for the examples that were submitted to us of the practical working of the instrument were as satisfactory as possible—suggesting no less amazement than gratification at the velocity of the process, which will shortly, as it were, bring the extremities of the kingdom together. The towns and cities with which the metropolis will at once be put into communication, it may not be uninteresting to enumerate; while others will be added as the telegraphs extend along the railways now in progress. They are as follow:—Margate, Ramsgate, Deal, Dover, Folkestone, Canterbury, Maidstone, Tonbridge, Gosport, Southampton, Winchester, Dorchester, Bristol, Gloucester, Cheltenham, Peterborough, Yarmouth, Huntingdon, Hertford, Northampton, Coventry, Birmingham, Wolverhampton, Stafford, Chester, Liverpool, Manchester, Leicester, Derby, Nottingham, Lincoln, Chesterfield, Sheffield, Bradford, Wisbeach, Lowestoff, Cambridge, Chelmsford, Ipswich, Rotherham, Barnsby, Wakefield, Leeds, Halifax, Rochdale, Hull, York, Darlington, Newcastle, Berwick, Edinburgh, Glasgow, Scarborough, Bridlington, Stamford, Norwich, St. Ives, Ware, Colchester.

Electric Telegraph Projected from Trieste to Hamburgh.—The Austrian Government, which has just had an electric telegraph established from Trieste to Odersburg, a point where the North Railway of the Emperor Ferdinand joins that of Silesia, has proposed to our Government to prolong this telegraphic line as far as Hamburgh, which will be of great utility for trade, especially now the Indian mail comes by Trieste. In this manner the most important Indian news could be transmitted in a few minutes from Trieste to Hamburgh, and from thence a steamer could transport it to England, where it would arrive much sooner than by the mail. The negotiations on this point have been entrusted to the Aulic Counsellor, M. D'Esch, who has been at Berlin for some time, entrusted with the mission of laying the basis of a new postal agreement between Austria and Prussia. The interviews which have taken place relatively to this object have already suggested to the Prussian Government, the project of expediting, henceforward, the correspondence for England by France, through Boulogne or Calais, which would produce a saving of 24 hours, and sometimes of 48, over that of Hamburgh, which is now adopted.

Brett and Little's Electric Telegraphic Converser.—Having heard much of the electric telegraph patented by Messrs. Brett and Little, and that it is likely to prove far superior to anything of the kind yet made public, we are glad to notice that the patentees are only waiting until the 12th of Aug., when they will be prepared to grant licenses for its use, without wishing to restrain companies who adopt it to mere railway purposes, but also empowering them to employ for commercial and other communications. We shall then be enabled to give a full description of the principle and the apparatus employed.

Improvement in the Electro-Magnetic Battery.—We are informed that Mr. L. B. Swan, of this city, has discovered a new solution, or exciting liquid, for the galvanic battery, which promises to be of great utility to telegraph companies, as it is a saving of 75 per cent. in the materials employed, besides a large amount of labour and attention. The improvement consists in furnishing an exciting liquid, which produces an electric and galvanic current of uniform power and intensity, without the rapid decomposion of the metals and acids, heretofore supposed unavoidable. The solution discovered by Mr. S. does not act chemically on the mercuricl amalgam, and with such trifling action on the zinc as to be scarcely perceptible. Mr. Barnes (the intelligent telegraph operator at this station), informs us that he has used this solution for 45 days, without alteration; no fresh amalgam or acids have been required (except to supply the ordinary evaporation), and without any perceptible destruction of mercury or zinc; during which time the battery has been in constant and efficient action.—*Rochester Advertiser* (United States.)

Original Correspondence.

THE LEAD TRADE.

Sir,—In your Journal of July 10, you mention that parties in South Wales are likely to sell their ores in future by tender. They will do wisely in seeking a public market, instead of sending (or rather abandoning) their ores to Holywell, to be disposed of there according to the fashion of that place. It is, unfortunately, too much the custom with miners, in their anxiety to make returns, to press their produce upon the market: but I do not agree with you, that large stocks of ore can be now purchased at the present prices. The exorbitant price that has lately been demanded for labour, owing to the price of corn, and amounting to 30 per cent. on 4-5ths of the disbursements of a mine, which consist principally of labour, must have retarded the get. Miners should consider, that when a quantity of orey vein is won, that that forms a treasure, in bank as it were, and should not be sacrificed. A striking example of the benefit of a prudent reserve in this case was shown some years ago by Mr. Lewis Pugh, when he was in possession of the Cwmystwith Mine. Instead of swamping the market, and grasping at a large, but temporary, return, as premium-seeking companies would have done, and as the smelters at Holywell wished him to do, he held his ore for a proper price, although he had it in his power to pour a quantity into the market.

Your remarks on the folly of companies withholding the funds to make a mine good are very just. In nine cases out of ten it is only a *large* and *long outlay* that can properly bring out a mine. The famous East Wheal Rose, which is said only to have 7 cwts. of ore to the fathom, is, from the circumstance of having a soft side to the vein, enabled to command a large and extensive excavation quickly. The great expense of timber to support the vein afterwards is, however, a drawback against this advantage; but let it be supposed, that another vein, containing ore of equal value, but in quantity of 10 to 12 cwts. to the fathom (but in hard ground, which requires 50s. per fm. to stope), is to be put in comparison with the East Wheal Rose. How is the hard mine to be placed in a position to compete with the soft one? Why, by *expending a large capital in opening her ground*, and waiting until her ground is extensively opened, then, by being enabled to attack the vein with a large number of hands at once, she will be enabled to compete with her more speedy adversary.

Machynlleth, July 11. Cardigensis.

MINING IN AUSTRALIA.

Sir,—Observing in your valuable Journal of the 22d May an article, stating, that the barque *Rookery*, which had shipped 170 tons of ore, was obliged to put back to Launceston to discharge, fears of spontaneous combustion of the cargo being entertained by the captain. I notice, that you mention this might be avoided by roasting the ore, and in this I perfectly agree with you; this process, however, if pursued there, as generally practised in England, would entail considerable trouble and expense. I know not how far, and at what price, coals are to be obtained in the vicinity of the Kaw-aw Mines, or any of the newly-discovered lodes in the Australian regions; certainly, if they could be obtained at even double the price they cost in England, it would be more economical in every way for the colonial miner to reduce his ores to cake copper on the spot. The simple process of roasting, if there is wood in the neighbourhood, would cost but trifling, as a few fathoms of wood will roast from 200 to 300 tons of ore; and the other processes, by a judicious union of the English and German methods, would be comparatively simple, and not expensive, as by this combination several of the ulterior operations are materially diminished.—A Smelter: *Christiana, July* 2.

ACTION OF SULPHUR UPON IRON.

Sir,—I think but few parties will be found to dispute the fact, that the action of sulphur upon iron is injurious to the metal. I have, for a number of years, devoted great attention to sulphur, its nature, and properties, and to the action and effects of its various combinations; upon these I can venture to express a decided opinion. When coal contains much sulphur, or pyrites, simple coking will not separate the whole of it. A portion of sulphur, certainly, is dissipated by the partial burning of the coal; but enough remains to have an injurious effect upon iron smelted, or worked, with such coke. The manufacturers of iron in Great Britain entertain an idea, and express it too, that they have attained a state of the very highest perfection. In their mechanism, and the application of mechanical power, there is, doubtless, much to admire; but of the fundamental principles, relating to the changes going on in smelting and forging iron, I feel compelled to express my opinion, that they are very deficient in knowledge. I ventured last week to make some remarks upon calcining ironstone; whether these will be attacked, or not, remains to be seen. In the treatment of ores and fuel for the separation of sulphur, the use of steam, at a high temperature, will be found the most effectual application. To accomplish this, I only know of two means—one, by Kymer and Leighton's patent grate; the other, by heating the steam, as air is heated for the hot-blast, previously to passing it through the materials—the latter will come under Mr. Perkins's patent. I take the liberty of intruding a little upon your indulgence, to give a brief outline of the arrangements which I contemplate for the use of the former in coking sulphury coal. The grate to be set in mason work, so as to form a close ash-pit, and an arch turned over the grate from side to side, leaving the two ends open. A fan-blast is required to blow into the ash-pit; but no blast is to be used over the fire, and a requiste supply of water for the grate. At one end the coal is thrown in; and at the other it is withdrawn, when sufficiently ignited, and acted upon by the vapour. Below the withdrawing end, a close deep kiln is to be built, having an opening at bottom, with a close iron door to fit. About half way up a horizontal opening, or slit—the length of one side of the kiln—is to be left for the purpose of introducing scaffolding bars; this opening to be provided with an air-tight cover. Different portions of coal, after being sufficiently calcined, are to be drawn from the grate into this kiln until it is full. The scaffolding bars are then to be introduced, the door at bottom opened, and the lower half of the coke drawn out. The door at bottom is then to be closed again, the scaffolding bars removed, that hole closed, the upper half of the coke dropping down, and the operation of calcining resumed, until the kiln is again filled. I consider this mode of coking quite as effectual, expeditious, and economical, as any other now in use—while the separation of sulphur will certainly be more complete.—T. H. Leighton: *Llandebie, July* 7.

GOVERNMENT INTERFERENCE IN MINES.

Sir,—As a constant reader of your paper, and having been brought up as a working collier almost from my infancy, I request the insertion of a few remarks in defence of the attack made upon me and my fellow workmen, by parties either directly or indirectly interested in the working of mines and collieries. In last week's Journal I observe a letter by Mr. D. Mushet, headed "Government Inspectors," in which he wishes to prove that inspectors can be of no use whatever in mining operations; in which opinion I most entirely differ with him. I am fully persuaded, that were such instituted, a saving of life and property, to the extent of 50 per cent., would be the result. I would ask, would not inspectors be able to ascertain whether upcast shafts were extensive in their area in proportion to the downcast? can they not compute and regulate the distances that collieries and mines should be worked with safety without additional shafts? should not the system, now practised in the coal districts of the north, of extending the workings in all directions two or three miles, without additional shafts, be put a stop to? This is one of the greatest evils we have to contend with; and while Mr. Mushet says 99 casualties out of every 100 are caused by the *carelessness* of the workmen, I contend that 99 out of every 100 are sacrificed to the screwing, economical system of working the pits to a most preposterous extent, in connection with only one shaft for both up and downcasts. This has been the cause of the loss of more valuable lives, and the destruction of more property, than all the acts of all the careless miners in Great Britain put together. As a proof of the correctness of this observation, I need only call attention to the explosions at St. Hilda, the Jarrow, and other collieries, where the enormous distances the men had to travel after the explosion was, doubtless, the cause of death. Let masters only do justice to men and mines, by instituting a more perfect system of ventilation; and the carelessness of the workmen will no longer be the cause of those fearful explosions, but the onus will be thrown on the proprietors and their managers. Sink us more shafts—conduct the air down them—sweep every nook and corner of the mine—and then you bestow upon the miner a boon, which the Government is in duty bound to give.—J. Hall (a miner): *Preston, July* 11.

THE NEW MINING BILL.

Sir,—It is certain this embryo is better than its predecessor, so quickly extinguished—a bubble burst in rising; more strictly, it is less bad, but it is obviously entitled to no praise. What hasty legislation! Improvement cannot be blundered on at hazard. How should those who have just escaped an error stumble on an achievement? Mr. Hume, it is true, is substituted for Mr. Duncombe; but is this enough? or is a bet or bond depending, that a law *must* be made, for the sake of making it *ad interim* until Aug., 1848? It professes to give security *for that time*. Will it increase even the shadow of security? I repudiate legislation, until a subject is understood, and time taken to construct an effective measure. Burning with the *cacoethes legislandi*, the authors think they have now somewhat. By a rare clause, no lights but lamps are to be used in mines until August, 1848. Mere nonsense, were it not tyranical. What are we to do in the Forest of Dean, where no lamp was ever seen or needed? Pray, honourable Members, light your candle with the bill speedily, to turn it to a useful purpose. Who are to be the informers? for the prohibition must be absolute, without exception. It would not be less anomalous to command lanthorns alone in private houses, until August, 1848, because snuffs have set houses on fire. Candles may be *taken out* of lanthorns, and lamps may be *unscrewed*; and this is the *fact* in many late explosions. Mr. Editor, search your varied resources, and furnish Messrs. Hume, Aglionby, and Co., a harmless subject ere the session expires, that their generous ardour may be expended—*that they may make a law.*—David Mushet.

Gloucester, July 13.

WORKING AND VENTILATION OF COLLIERIES.

Sir,—In the letter of Mr. G. Shepherd, C.E., it is evident, from his own confession, that he has never examined the colliery workings abroad, although he has the temerity to assert that they are so well conducted as to be a pattern for ourselves; and that the cause of such superiority is from their being conducted by educated men. How disgraceful it is for men who profess to be better informed than their neighbours, to hazard opinions on subjects with which they are totally ignorant, and merely from hearsay. While Mr. Shepherd, like all other sky gazing, surface miners, sets down the colliery viewers as the most ignorant dolts in existence, it would be well if he would school himself a little, and thoroughly understand a subject before he ventures to suggest improvement. His steam flue is all of a piece with what he has before written—it is worse than useless. I can assure you, Mr. Editor, that there are many mineral surveyors in our coal districts, who, in addition to their own peculiar profession, are capable of undertaking, with credit and success, any railway, or other civil engineering project, and at far less cost than has ever yet been accomplished by the C.E.'s of the past or present day, and who could drive a tunnel all the way from London to Bristol, or Birmingham, for what those railways cost at surface. With respect to plans and old workings, Mr. Shepherd's remarks are unworthy of notice. We have plans by which we always know our position underground, with respect to other workings; and as to not touching old works, it is ridiculous to suppose so much coal can be afforded to go to waste, as would be the case if we were to leave walls of coal between every new range of work. If Mr. Shepherd is a railroad engineer, he had better stick steadily to his own profession, and let colliery business alone. Mr. D. Mushet's letter, in your last week's Journal, was very much to the point, on the subject of Government surveyors; and I am happy to agree with Dr. Murray on the policy of the total abandonment of the safety lamp. If a law was made to prohibit entirely its use, except to explore with, and in making and repairing air-ways, there would be an end to such wholesale loss of life in collieries. If we look back to the history of coal mining before the Davy lamp was invented (and I worked in fiery collieries long before that period), we shall find no such dreadful and wholesale slaughter of human life as there has been since, entirely from the circumstance of its creating a false and unwarrantable confidence. Our young engineer thinks I am "a little nervous." I assure him I am; when I fancy any of the men working under my care are in danger, I always hasten to the spot, and remedy it, if I can; and if I cannot, I take the men away until it can be done effectually, and in which I am always successful. It may be considered a bold and vain boast; but I would undertake to properly ventilate any fiery colliery in the world, so as to get the men safely to work without safety lamps; and I am very sure they cannot work in safety with them. There are as many lives lost by railways, steam-boiler explosions, and shipwrecks, as by colliery explosions; let, then, the attention of these would-be colliers be turned to the prevention of such accidents, and leave off meddling with what they do not, cannot understand. I willingly acknowledge that great improvements are wanted; but they must be effected by the sound and well-tried practical portion of the colliers themselves.—T. Deakin: *Blaenavon, July* 13.

Mr. SHEPHERD'S PROPOSED SYSTEM OF VENTILATING MINES.

Sir,—On examination of Mr. G. Shepherd's plan for constructing a ventilating furnace at surface, I am confirmed in the opinion which his former sketch led me to entertain, that the effect of such an arrangement would much resemble what was pointed out as likely to result from his first scheme on this subject. When I requested Mr. S. to furnish your readers with details for the construction of his furnace, I especially asked for information, as to the manner in which he proposed to supply the fire with air for combustion; and, by his sketch, it now appears that the principle adopted is exactly that of the common steam-engine furnace. The practical effect of such an arrangement as this would be merely to cause a rapid draught through the fire, and the upper part of the chimney, and to induce nothing more than a sluggish current in the flue below connected with the upcast shaft—of very small serviceable value for the purpose required. To render the furnace at surface really useful, the air that feeds the fire must be obtained from the adjoining upcast shaft by an opening for that purpose, beneath the bars, and on no account from the external air, which ought to be carefully shut out by close-fitting doors above and beneath the bars, to be opened only for the short period required for replenishing the fire, or taking away the refuse cinders. I am very doubtful, also, as to the benefit which might arise from the addition of the boiler and jet of steam, as suggested by Mr. S.—having reasons for believing that the heat required to generate the steam, would prove more efficient in its effects, if conducted directly into the chimney, rather than if passed through a body of water, to be afterwards discharged in heated vapour; and I am quite certain such a plan would be objectionable, economically, and, in many situations, would entail considerable difficulty. Much has been said by Mr. S. about the known laws of Nature, and the utter ignorance of the poor abused ground bailiffs, in reference to those laws; but the repeated misapplication of these laws in his various projects by Mr. S.—who, it is concluded, must be *theoretically* acquainted with them—only serves to show, that however valuable theory and practice may be, when happily combined in the director of mines, yet the interests of the coalmaster, and the safety of his workmen, are, of the two, in far better keeping in the hands of the despised *practical miner*, than consigned to the care of the *carping theorist*, with haply his panacea for all mining evils, in the shape of some costly vagary, or fanciful speculation. The Black Diamond.

Kilburn, near Derby, July 14.

Mr. G. SHEPHERD'S SYSTEM OF VENTILATION.

Respected Friend,—I expressed myself, in my letter of June 30, that the system of ventilation, proposed by Mr. G. Shepherd, C.E., in his lecture, had been in practice in the *shallow* works of Shropshire. This is well known by aged persons in the parishes of Madeley, Benthall, Broseley, Willey, Barrow, Dawley, and Wellington. This, probably, his own experience has not shown him, but his forefathers, I doubt not, were well acquainted with it; but extended experience has proved its inutility in the deeper mines of this district, and it has given way to a better and more powerful system.—Obadiah: *Lawley Bank*, 7 *mo.* 15.

VENTILATION OF MINES—Mr. GIBBONS'S SYSTEM.

Sir,—* * * In reply to your correspondent, Dr. Murray, in last week's Journal, and as I am anxious the already lengthened controversy on this subject should be brought to a close, I will here give my views of the system in detail, and then Dr. Murray will be at liberty to reply to them separately, and, I hope, without alluding to me personally. I will, first of all, give a description of the mode of ventilating the colliery I before alluded to, as having raised more than 200,000 tons of coal without the sacrifice of a single man or boy. There are two shafts 38 ft. area each, about 120 yards deep, 10 yards apart, and both on the same level. The gate or horse-roads are about 120 ft. area each, driven on the bottom of the coal, of course, and connected at the further extremity. The air descends the one shaft, takes the course of the up road, and returns *down* the other to the upcast shaft, where a small fire is kept, when required; an ordinary shovelful of fire is capable of producing the most wonderful effects upon the ascending current, in consequence of its being almost entirely devoid of friction, from the size of the air-passages, which is produced

in other cases by passing it through small air-heads of 7 ft. area, and less. A portion of these workings being at an angle of 25°, or more—consequently, often on cessation of work become highly charged—nothing more remains to be done than apply a small quantity of fire at the bottom of the upcast, and, in a quarter of an hour, the whole pit is free; the superfluous current moving without scarcely any friction, sweeps the most elevated spot, drags down and carries away with it the deadly invader.

Now, as to Mr. Gibbons's system, to "begin at the beginning," will be first to speak as to the capabilities of the *elongated* shaft, or ventilating stack, rising (say) 90 ft. above the level of the shaft; this stack is 12½ ft. area; a furnace for rarefaction is constructed, and enters the stack near the base. Now, is it not evident that the partial vacuum, or elasticity, produced by the rarefaction, will be destroyed by admitting air a shorter way than obtaining it from the depths of the mine? As, for instance, cut a brick or two out of the back of a factory chimney, and see whether that will not destroy the effects of the fire upon the boiler; on the other hand, connect this breach made into the chimney to a culvert, which (say) is carried 100 yards from the chimney, and then observe whether the air will traverse the culvert with the same velocity as it did through the naked hole. Hence, I say again, that any external communication the ventilating stack may have, deprives the upcast column from the shaft of that velocity which it would otherwise derive from the power of the rarefied column of air in the stack. As to the "groove" of 4 ft. area, cut behind the brickwork of the shaft as an upcast, being capable of carrying off the gas and air sufficient for the mine, is such sheer nonsence, that I hope Dr. Murray entertains no thought of this ever bearing him out. I admit, that *if sufficient power was* applied at surface to command a current to ascend this small "groove," it may then be capable of doing what is designed for it; but, in the absence of such power, it cannot be other than worthless—for the stack having a breach made into it, renders the upcast column no longer than the downcast, and only about a tenth of its proper size, besides the liability of its being "hove to," or disturbed, and reducing the strength of the shaft. Where would any top water be directed to? I presume the "groove" must take it all; then what would become of the upcast current against a falling cataract? —*this* would be an "extinguisher" I think. As to the "top air-heading," I cannot conceive much (if any) benefit to be derived from it; it is quite certain that it costs by far more than the ordinary mode of driving it about the middle of the coal seam. It is not a tenth part so safe during progress, and entails greater attention and trouble; and, when completed, is no more effective than the ordinary mode, which is always elevated to the point where the drainage is required to take place, though perhaps, in some cases, rather injudiciously.

In the stack at surface there is about 800 square feet of heated surface for the purposes of rarefaction, after the fire is extinguished, and about 1000 cubic feet of rarefied air contained in the stack. Now, if the upcast shaft, 120 yards deep, 7 ft. diameter, was rarefied, no leakage could ensue; the partial vacuum produced could only be supplied by the air from the mine, in which shaft there would be above 7500 square feet of available heated surface, and about 14,000 cubic feet of rarefied air. Now, place the effect produced by the rarefied column of air of 1000 cubic feet at *surface*, having to draw a current through a hole only 4 ft. *area*, against the result obtained by the rarefied column of 14,000 cubic feet, drawing a current through an opening of at least 7 ft. dia., and some cases 81 ft. area. It should be remembered, be the quantity of gas what it may, or the number of colliers, however numerous, the whole of the deleterious gases have to be passed through the groove of 4 ft. area, regardless of its state, whether half closed from the action of the air upon the argillaceous earths, with which the district abounds, or water trickling down the sides, or rented, and drawn to pieces, by getting the upper or lower seams. With respect to placing the fire as an auxiliary at *surface*, in preference to the *bottom* of the upcast shaft, is such folly, that it requires no notice from me,—but I would observe the words of an old and experienced thick coal collier the other day, one who has spent 50 years in the carrying out and directing of coal workings, that he "would rather have his hatful of fire at the *bottom* of *his* shaft, than a boat load at the *top*." Certainly, the system has already been most *deservedly* (as Dr. Murray observes), "illustrated by discussion," but we have yet to see it "exalted by time;" we certainly have waited patiently a long time. In my opinion, it simply amounts to this. An original plan is propounded by a worthy gentleman for improving the ventilation of mines—several explosions have taken place—parties killed, and others injured. Nevertheless, these accidents are not considered as showing any error in the plan—longer time for the trial of it is prayed—and, if some fine morning, we hear of a wholesale loss of life, under its carrying out, then will be the time for strangers to be at liberty to inquire "why, and wherefore," this old plan, new revived, has failed. For my part, I wish Mr. Gibbons every success with the system; but the repeated explosions—I cannot in justice call them accidents, or even recklessness of the collier—are the best demonstration there is of its efficiency. To talk so much of the recklessness of miners, appears to me to be downright folly; remove the cause from their hands, and then we should hear less of explosions. A candle is placed in a miner's hand, and he is told, without he does his quantum of work, that he will be that much short in cash. Away he goes with a light heart, and willing hand; and because he walks into an explosive atmosphere (an atmosphere, in nine cases out of ten, he is incapable of detecting), allowed to remain there by those authorities, over whom *he* has no control whatever, is snatched from his family for 7 or 15 years, besides throwing desolation and ruin upon whole families. H. JOHNSON.

Dudley, July 13.

COPPER SMELTING—ERRATA.

SIR,—I beg to correct an error in my short notice, in last week's Journal, of a new project connected with copper smelting. You have it, that ammonia and sulphurous acid form sulphate of ammonia; instead of which, sulphite of ammonia would result from the union of ammonia and sulphurous acid, but which I have no doubt a good chemist could easily convert into the sulphate, a valuable salt, &c. JUPITER AMMON.

Swansea, July 12.

ADCOCK'S SPRAY PUMP.

SIR,—I cannot but think that a more detailed description of this invention, with necessary illustrations, would prove very acceptable to the readers of your Journal—in which we naturally look for a perfect report on all matters of interest in the scientific world. Mr. Adcock's pump, after all that has been written on the subject, both for and against, appears, from the notices in your late Numbers, to be of far more value to miners than was generally supposed, and I should be glad to find my suggestion attended to.—J. M——s: *Battersea, July* 12.

[We shall certainly comply with the wish of Mr. J. M., and publish, in an early Number, a detailed description of Mr. Adcock's pump, with engravings.

IMPROVEMENTS IN TELEGRAPHIC COMMUNICATION.

SIR,—I have read with much interest a description of Mr. Bain's improvements of the electric telegraph; the introduction of the perforated paper I consider as eminently adapted for private or commercial purposes—these improvements will enable each commercial firm to communicate in their own private signals of characters, and by such means it will render their communication as private as per post. But, if I am not mistaken, the electric action on paper, and other substances, prepared for that purpose by chemical solutions, were some time since patented by Mr. Bagge, the electrician, and which Mr. Bain, as it appears to me, has but applied to telegraphic communication. If I am wrong, I should like to be informed.—G. SHEPHERD, C.E.: *London, July* 14.

TRANSIT OVER RAILWAY BRIDGES.

SIR,—Might not the security of long bridges be considerably increased by lengthening the coupling irons of trains, so as to extend them over a larger space whilst passing over, instead of the whole weight being crowded upon a comparative point of resistance as at present? Would not iron chains answer the purpose; and could not some cast off and recoupling apparatus be employed? When it is considered that a single accident appals travellers, and lessens traffic, not merely by non-working, but by terror, something may be done even by those who have a horror of Lord Brougham's *sobriquet* of "*humanity-mongers*." A. T. J. MARTIN.

Penzance, July 12.

THE MENAI-BRIDGE TUNNEL.

RESPECTED FRIEND,—In reply to John De la Haye, I beg to state that my informant, relative to the Menai Tunnel, was Professor Hodgkinson, and, therefore, conclude I was not misinformed; if, however, it be intended to have a support at the centre (which I should most certainly advise), then the substance of materials will be amply sufficient, and, if properly constructed, no danger need be apprehended. I am aware that the tunnel, as J. Walkinshaw observes, might be assisted by suspension, either above, in the ordinary way, or below, by an enlarged modification of the plan for wrought-iron viaducts, which I submitted to George Stephenson and Son, at Liverpool, and which was published by Dr. Lardner, in vol. 24, *On Iron and Steel*, in the year 1831; but either way I should consider would be a very expensive mode for obtaining the object, probably not less than *double the cost* of the plan I submitted for the Clifton-bridge, published in your Journal, 22d of May last, which would, in my opinion, be very superior, inasmuch as its principal support would be derived from the principle of compression—and, therefore, be a firmer, safer, and more durable fabric, than if mainly depending on the principle of tension for the support of itself and its loads. Perhaps it might be useful to the public to copy the article alluded to in Dr. Lardner's *Cyclopædia*,* reviewing which I see no reason to doubt the general conclusions, excepting in consequence of the great advance in iron and labour, something like 20 or 30 per cent. ought to be added; I have no doubt, at the present price of materials and labour, that a substantial and very durable foot, or light carriage, bridge, 50 feet span, from 8 to 12 feet wide, including every expense (except walls to rest upon), might be made at a cost of from 80*l.* to 100*l.*; of the same span, 12 to 16 ft. wide, and sufficiently strong for an ordinary road bridge, for 160*l.* to 200*l.*; and of the same dimensions for a single line railway, capable of sustaining, with *absolute and perfect safety*, the most ponderous engines and carriages (and their loads), now in use, for from 300*l.* to 400*l.*; and bridges double the span—viz.: 100 feet—at about three times the cost of each respectively.—THOMAS MOTLEY: *London, 7th mo.* 13.

* The article is referred to in an editorial notice on the subject.

THE MENAI TUNNEL.

RESPECTED FRIEND,—I beg to submit, that in alluding to the Menai Straits Tunnel, in my last letter, I did not mean to invalidate the statement of T. Motley, as regards the strength of the tube, based on its length, but simply as to the diameter, and the quantity of metal required. The centre pillar is not placed to support the centre of a tube 460 ft. in length, for the passage is 900 ft. wide—consequently, it is only the end of each division of 450 ft. in length, which are to be placed on the centre pillar. What I have stated in that respect I have borrowed from the press, and I am not aware that any alteration has been decided on as to the main features of this structure, since those statements were made. A few months since, a description of the tube was given in the *Illustrated London News*, with a large engraving; it was represented as resting on a centre pillar, built on the Britannia Rock, from whence the structure is to be named the Britannia Tunnel. T. Walkinshaw proposes, that wrought-iron rods should be used to strengthen the tube; but no engineer will suppose for a moment that it is built as a common boiler, without ribs and longitudinal bars. I had proposed to construct a skeleton tube, by means of wrought-iron spiral ribs interwoven together, and rendered rigid by longitudinal iron bars inside, then to rivet the iron plates outside; but how far this principle has been adopted I cannot say, as a detailed description of the work has never been brought to light, but I believe that a large quantity of cast-iron is used in the structure.—JOHN DE LA HAYE: *Liverpool*, 7 *mo.* 14.

BRITANNIA BRIDGE—A NEW WONDER OF THE WORLD.

[*Extracts from a Note Book.*]

Having had a private view of the model of the Britannia Bridge, the other day, in Manchester, and perceiving that the public are daily becoming more and more interested in it, I shall here relate an account of it, from information derived at the place of its erection, on a recent visit to the Menai Strait, and at the place where I saw the model.

The Menai Strait is an arm of the sea, separating the island county of Anglesea from Carnarvonshire on the main land of Wales. It is about 14 miles long, varying from 200 yards to 2 miles in width. An impetuous tide sweeps through it, which, at one time, with the mid-water, and under water rocks, rendered its navigation exceedingly dangerous. The worst of the rocky dangers have been removed, and vessels of the largest size may now pass from Carnarvon Bay, on the south of Anglesea, to Bangor Bay, on the north, without sailing round Anglesea, should the stormy weather or contrary winds, at Holyhead, render the passage of the Menai Strait preferable.

The necessity for a passage across the Strait was, originally, to connect the island and the mainland; and while that was all, the passage was by ferry boats upon the water; ultimately, the harbour of Holyhead, on the extreme west of Anglesea, the nearest point to Ireland, was decided upon as the English starting and landing place; roads were made from England through Wales, and a bridge, unequalled in beauty and magnificence, suspended by ponderous chains, on lofty piers, was thrown across the Strait, at a narrow point, about two miles from Bangor.

In process of time it was deemed expedient to supersede the turnpike roads leading to Holyhead by a railway. At first it was proposed to use the suspension bridge for the railway trains, by having stations at each end, at which the locomotive engines would be detached, and between which a stationary engine would draw the trains. The bridge was declared capable of sustaining a weight of 2600 tons, of which 1094 tons were its own weight; thus giving a surplus strength of 1506 tons. If the bridge was covered with loaded railway carriages over all its length, and on each side of its road-ways (it is divided into two, with a spacious pathway between), the weight of the carriages would have been 365 tons, leaving still a surplus strength of 921 tons; but other objections to its use for railway trains arose, chief of which was its undulatory motion.

One would suppose that the wind would cause it to swing to and fro, rather than to heave up and down in undulations; but it has hardly any sideway or swinging motion, nor has it now as much of the undulatory motion as it once had. Mr. Fisher, the resident engineer, told me that he had known it heave 6 ft. above, and deflect 6 ft. below, the level in gales of wind. It has been improved by adding weight to the roadway, and tension rods between the chains, so as to prevent that extreme motion which in gales of wind ran along it like a heaving wave from end to end, tearing up the flooring which formed the paths and waggon tracks—still it is undulatory. I stood on it recently in a gale, and felt it heaving beneath me as a ship heaves when a billow passes underneath. This being a characteristic inseparable from its construction, it was resolved that a new bridge should be erected for the use of the railway on a new principle. The inventive genius of Mr. R. Stephenson declared that this new bridge should be two iron tubes, or railway tunnels made of iron plates, laid parallel to each other, on piers built upon the rocks beneath.

If we suppose ourselves stationed in a boat in the middle of the Menai Strait, a few hundred yards distant from the new bridge on the south side, and suppose it finished, we shall see a wonder of the world of this kind: first, there is the middle pier rising out of the water founded on the Britannia rock, from which the bridge takes its name; this rock can be seen at low water, it is covered at high water the breadth of this pier is 62 ft., by 53 ft. and ½ inch. The blocks of stone are 7 and 8 ft. long, by 3 and 4 ft. in breadth and deepness, and they rise stone upon stone, until the pier is 230 ft. high.

At the distance of 460 ft. on each side of this centre pier there rise, near to the water's edge, two other piers of the same gigantic breadth and height; while, on each side of these two piers, at the distance of 250 ft., there rise two walls. Continuing outwards, the wall on our right hand on the Carnarvon shore does not extend its ponderous bulk far back, for the land is high and bold, and the railway comes along its elevated brow, and at once lays hold of the bridge; but on our left hand, which is the Anglesea shore, the wall is the forehead and end of a mighty embankment, on which the railway is raised to the level of the bridge.

There, then, are the four spaces before us, across which, in the iron tubes, the railway is laid—viz.: two spaces on each side of the centre pier of 460 ft. each (let the reader measure 460 ft. on a street or on a road, and he will wonder at the vastness of this structure), and two more spaces of 250 ft. respectively at each end. The tubes are eight in number, each of them 30 ft. high on the exterior side, and 27 ft. high in the interior; each is 14 ft. wide, and they are laid in couples parallel to each other. Taking ourselves in our boat underneath the bridge, and looking up, glancing from the Carnarvon side of the Strait, we see two tubes, rather, we should say, masses of iron, for they do not seem to be tubes, lying side by side from the wall already named across the space of 250 ft.; they have each a hold upon the stone-work, several feet at each end, and they rest upon moveable rollers and balls made of gun metal, the hardest known; those rollers and balls resting on beds of metal, and moving outwards or inwards as the massive tubes of iron expand with heat or contract with cold.

Next we see two others of the same height and width—viz.: 30 ft. high, and 14 ft. wide, lying side by side across the next space of 460 ft., and resting on the masonry as the others. Thirdly, we see two more lying side by side across a space of 460 ft.; and lastly, two crossing the space of 250 ft. In the whole, with the breadth of the piers and the landward buildings, the length of the bridge is *one-third of a mile*.

In height the three piers are, as already said, 230 ft., but they are 70 ft. higher than the tubes; these are so massive, that their actual elevation above the water seems less than it really is; and so dead and inelegant to the eye, that it was necessary to raise the piers 70 ft. above them, to give a show of elegance to the structure. Measuring from low water mark to the bottom of the tubes, the height is 136 ft.—the tubes being 30 ft. on the side, and the piers 70 ft. above their upper surface. As ornaments to the two walls which rise upon each shore, are four lions, two at each end of the bridge—the lions contain about 8000 cubic feet of stone. They lie couched, and yet the height of each is 12 ft.; the greatest breadth across the body is 9 ft.; the length 25 ft.; the breadth of each paw 2 ft. 4 in. As we are now so high as to see the lions in detail, we may look into the interior of the iron tubes. They are made of plates of iron, of various thicknesses, rivetted together; the iron increases in thickness as we proceed towards the centre. We now see that the roofs of the tubes are formed of cells, and also the floors; those cells are formed of iron plates set on edge, the cells of the roof being within a fraction of 1 ft. 9 in. square; and those of the floor being 1 ft. 9 in. wide, and 2 ft. 3 in. deep—the rails on which the trains run are laid on those cells of the floor. The flat bottom, the two upright sides, and the flat roof of each tube are formed of plates, the thinnest of which is ¾ of an inch, and the thickest 12-16ths of an inch; but the number of them laid together, and the internal joinings cannot be yet explained. The weight of each of the four long tubes will be about 1300 tons; the weight of each of the four short ones about 600 tons—in the whole, there will be at least 7600 tons of iron used. No contracting estimate of the expense of the iron part of the work has been made, as the work may cost more or less, according to circumstances. The masonry was contracted for by B. J. Nowell & Co., at 130,000*l.*; but, from alterations in the plans, it will cost (suppose no farther alterations be made), 200,000*l.* They expect to finish the masonry by August, 1845—it will contain one million and a half of cubic feet of stone.

When I was there in May 50 vessels, of 60 or 70 tons each, were employed in conveying the stones to the works; the red sandstone, of which the inside courses are built, from Runcorn; the blue limestone, of which the outside courses are built, from the sea shores of Anglesea. The quarries on the Anglesea shores, opened for this work, extended over 20 miles. In the whole there were 1300 men employed, 500 of them at the bridge, the fortnightly wages of the latter amounted to 1300*l.*; 3000 cubic feet of timber had been used at that time for stages and scaffolding. Two steam-engines were at work on each shore, and a third was being erected on the Britannia rock, in the centre of the Strait, to hoist the stones, grind mortar, saw timber, and perform other heavy work. On each shore there was a lime-kiln, the chips of the limestone falling from the irons of the hewers being burned into lime, and the chips of the red sandstone being ground to powder to make mortar with the lime. There were 17 gauntries, with travelling crabs on each, for moving the blocks of stone; railways diverged and converged on which trucks ran along, and every heavy weight in the building of this wonderful structure was moved as if men were gods, who only willed that huge blocks should take motion and they took it.

The building of the iron tubes had not then begun, but the stages upon which they are to be built were erected, extending along the Carnarvon shore about a quarter of a mile. The plates of iron are in preparation at different places in England and Scotland, and they will be conveyed separately to Wales, and put together on these stages. The tube will then be conveyed from the shore and elevated to their places in this way. We shall imagine ourselves present while the mighty thing is in process of being done, each of them requiring only about six or eight hours to be removed from the stage upon the shore, and raised to its lofty elevation.

Imagine then the day. Is it not a scene worth living for? We are on the shore of Carnarvon, looking across the rapid tide now flowing to the high shores of Anglesea. A mile below, on the wooded slope, is the beautiful residence of the Marquis of Anglesea; and on the hill nearly opposite to us, overlooking the great work of this great day, is the column erected to commemorate the Marquis and Waterloo, the column having the familiar name of "Lord Anglesea's Leg," he having got this column on the Anglesea hills because he lost a leg on the plains of Belgium. May Stephenson achieve a triumph in art this day, as undoubted as was the triumph in war of Wellington and Anglesea on that day! How glorious for him and for England if he does! But why say *if*? He will triumph. He has risked nothing here—he has reduced everything to certainty.

The tide is now favourable. A line of barges lying side by side have been placed beneath the stage on which one of the great masses of iron has been built; the stage is removed, and the tube of 1300 tons rests upon the barges. They are towed out upon the water with their monster freight, are brought round, and drawn forward until they and it occupy the space between two of the piers—they are moored and made fast there. The outside width of the tube being 14 ft., there is a groove in each of the piers wider than that, and at the bottom of the piers stones have been left out to admit the ends of the tubes into the grooves. Those grooves extend upwards as high as the iron is to be elevated—viz.: 130 ft. At a height considerably above that, within an archway which is in each pier, an hydraulic press of great power is stationed. A chain of remarkable construction which we cannot now stop to examine and talk about, extends downward from the hydraulic press, and is fastened to the end of the tube. The press is put to work, and it has the power of lifting the mass of iron 6 ft. This we see, looking only at one pier and at one end of the tube; but a second press and chain are employed simultaneously with this at the other end. When they have raised the large thing 6 ft., iron girders of great strength are placed underneath it, across the groove, the ends of the girders resting on the stone work of the pier which abuts on each side of the grooves. These being placed, the press stops, and allows its iron burthen to rest on them, and the chains are slackened; while slackened, a link, or section of each chain, measuring 6 ft., is removed; each is again fastened to its load, the presses are again at work, and the tube is raised 6 ft. higher. Again, girders (or bearers) are laid across the grooves; again, the gigantic wonder of the world rests in its upward progress; and again, the chains are shortened by 6 ft. each; and again and again, the press goes to work.

And now this aerial tunnel is high enough, its bottom being 130 ft. above the water. The iron bearer, which is never to be removed, and which has upon its upper surface the rollers, and balls of metal already named, is placed underneath each end; the press allows the obedient monster to sink into its place, and there it is more solidly at rest than any one will be in his bed to-night who has been witness to this day's mighty enterprise.

To-morrow, and the next to-morrow, and the next again, and so forth, the others will be raised, and laid in their places, never to be shaken by gales of wind or deflected by railway burthen. Their own preponderous weight will keep them immoveable; the augmentation of burthen will only strengthen them—at least we are told so.

And now to the old bridge, three-quarters of a mile distant, rearing its fabric in the air more gracefully than this solid monster, but not more amazingly. Some of us may be bound for Bangor, some for Beaumaris, some for Conway, where, 12 miles distant, another tubular bridge of lesser dimensions is erected; and some may take the railway to Chester, 80 miles distant, and so on to Liverpool and Manchester, to tell of the work of this day; but more probably *we* shall go to the hospitable and beautiful waterside palace of Miss Roberts—the *George*, and once more dream of a residence in fairy land, and be neither able nor willing in the morning to dissuade ourselves that we are not in fairy land, but only in Wales.

When I came to this most lovely house first it was in the dark, at night. I came from Holyhead. From the top of the mail coach, I first saw the Menai bridge; the upright rods connecting the floor of the bridge with the chains over-head rising on each side of the coach, and extending in a long avenue—so very long, that with the night around us, and the deep, deep mystery of waters rolling far below, the white foam just visible in the darkness, and black boats and ships upon the foam, with lights in them glaring up to us as if they were creatures with monstrous appetites for mail coaches and passengers; with those sensations in one's head, the avenue of upright iron rods seemed so long as to have no ending; but it came to an end, and the coach soon gave such of its passengers as chose to alight to the custody of the *George*.

Waking there in the morning, without being entirely conscious whether my bed was on board a Dublin steam-boat, or in Dublin itself, or in Wales, or Liverpool, or Manchester, but having some indistinct idea that it was on the brink of a dark yawning chasm, where terrific whirlpools of deadly depth had been gaping all the night to swallow up me and a mail coach, four horses, a Welsh coachman, a scarlet-coated guard, the Irish mail-bags, and the fragments of the treacherous bridge that was only alluring us to its centre to let us drop down, I got out of it, the bed, and looked out upon—oh! words cannot tell the glorious transformation! It was a May morning—the sun was just up—the leaves of the trees were just out—the birds were singing—the house stood above a flowery garden, and the flowery garden overhung the broad glittering water of the Menai, whose tide, flowing at the time, carried boats along with the speed of race horses; while, over all, high in the air, there rose the fairy-like fabric of the Menai bridge, as if it had been spun like a cobweb in the night-time to glisten in the morning dew.

And such delightful walks on the high rocks above the topmasts of ships, which lay below us at anchor, when I went to Bangor; such grandeur of scenery on this side, with the Snowdonian Mountains in the blue back ground, when walking to Beaumaris, on the opposite shore! And such a cheerful welcome to the excellent breakfast of the smiling hostess, after those early morning walks! And such an amazing sight, to go, after breakfast, to the heights overlooking the Britannia rock, where men and machinery were rearing, day after day, stone by stone, the Britannia bridge, the newest, and greatest wonder of the world! Who, I would ask, the steam-boat fare being only 6s. from Liverpool, would not go to see it?

RECENT AMERICAN PATENTS.

[From the *Journal of the Franklin Institute.*]

Improvements in Leather Belts for Driving Machinery, and in the Machinery for making them: William Kumbel, New York, April 11.

Claim.—"What I claim as my invention is the method of making leather bands by stretching the pieces separately, when this is combined with the stretching of the whole after the pieces are put together, as described. And what I claim as my own invention, in the above-described machine, is the combination of the double or single geered windlass, as described in group first, with group third; that is, the second cylinder having the retaining beam, friction pulley, and weighted lever, as described, to be operated and used substantially in the manner and for the purpose herein above set forth and described; and in combination with these the cross-head and railway as described."

The machines used for stretching consists of windlasses and bars, with pins projecting from them to hold the punched ends of the pieces of leather intended to be rivetted together to make belts. The first machine is employed to stretch the short pieces, and the second machine is of much greater length, to stretch the entire length after the pieces have been put together.

Improvement in Water-wheels: Ralph Summers, Seneca Falls, New York, April 25.—Claim.—"Having thus fully described the construction of my wheel, what I claim therein as new, and desire to secure by letters patent, is constructing the wheel so that the water shall be received upon an inclined surface, extending from the eye to the periphery, and thence entering the passage upon the same surface undiminished in width; said passage increasing in the direction of the axis, and diminishing in the direction of the radius—so that the areas of all its sections shall be substantially equal, and so located and extended that the water shall all be discharged immediately outside the periphery in a thin tangential sheet, whose plain is parallel to this axis, the whole being constructed and combined substantially, as herein set forth.

Furnace for Burning Bricks: J. W. Andrews, Norristown, Pennsylvania, April 4, 1846; added to original patent, bearing date March 21, 1843.—Claim.—"Having thus fully set forth the manner in which I construct and use my kiln for burning bricks with anthracite, or other coals, what I claim as new, and desire to secure by letters patent, is the two principal flues passing outside of the kiln—one on each side, and one centre flue, passing through the centre and under the floor of my kiln. These main flues are connected with lateral flues, or branches (as described in my original patent), necessary to conduct the wind required under each fire or into each air chamber. I have, in the foregoing description, given that form and arrangement of the respective parts which I deem the most convenient, but without intending thereby to claim any thing claimed and covered in said letters patent, granted the day and year within mentioned, No. 3016; also, without intending thereby to limit myself in these particulars, but varying the same as I may find expedient, whilst I attain the same end by means substantially the same, in the manner represented and made known."

EAST INDIAN JUNCTION RAILWAY COMPANY,

FROM ALAHABAD AND BENARES, VIA JAUNPOOR AND AZIMGURH, TO GHAZEPOOR AND GORUCKPOOR.

Provisionally Registered.

Capital £3,400,000, in shares of £50.—Deposit 5s.

PROVISIONAL COMMITTEE.

Lieutenant-Colonel Harley, Prior Park-buildings, Bath
James Deacon Howe, Esq., Highbury Vale
Reece Price, Esq., Tyne Hall, Great Ilford, Essex
John Northcote, Esq., Uptowman, Tiverton, Devon
James Vernon Stoddart, Esq., Mornington Crescent
James Hickenbotham, Esq., Rochford, Essex
William Maxwell Powell, Esq., Upper Holloway
William Walter Smith, Esq., Brook-green, Hammersmith, and Warwick
George Warman, Esq., Greenwich, and Thrapston, Northamptonshire
(With power to add to their number.)

BANKERS—London and County Joint-Stock Bank.
ENGINEER—John Thompson, C.E.
SOLICITOR—T. W. Smith, Esq.
SECRETARY (pro tem.)—James W. Parrish, Esq.

The object of the promoters of this undertaking is to connect the large and populous cities of Jaunpoor, Azimgurgh, Ghazeepoor, and Goruckpoor, by a line of railway passing through some of the most exuberantly rich and fertile provinces of North-Western India and of the Valley of the Ganges, forming a junction with the great trunk line of the East Indian Railway at the large and flourishing cities of Alahabad and Benares; thus opening a direct communication between those provinces and Calcutta, and by the proposed line of the Great Indian Peninsula Company with the presidency of Bombay.

The promoters of this undertaking wish to draw attention to the report of the managing director, R. Macdonald Stephenson, Esq., to Sir George Larpent and the directors of the East Indian Railway, dated Calcutta, April 8, 1846, where he says:—"As regards lines of railway which may have been, or may hereafter be, proposed by other companies, and which unite at different points with the trunk line of the East Indian Railway Company, it is subject deserving the consideration of your board whether the interests of the company will not be promoted by the board rendering every assistance and information they are in possession of to the parties who may require it, and, otherwise, to promote the extension of such branch railways as shall tend to increase the traffic on the main line."

Applications for prospectuses and shares to be made to the secretary, at the offices of the company, 38, Bucklersbury; and to J. Mundell, Esq., stock and share broker, 6, South Hanover-street, Edinburgh.—London, July 2, 1847.

BIRMINGHAM AND OXFORD JUNCTION RAILWAY.

THIRD CALL OF FIVE POUNDS PER SHARE. 61

The directors having passed a resolution, requiring the shareholders to pay a further CALL of FIVE POUNDS on each and every share held by them respectively, on the 2d day of August, 1847,—Notice is hereby given, that the shareholders are required to PAY such call on the day appointed, to one of the under-mentioned bankers; and, in default thereof, they will be charged with interest, at the rate of 5 per cent. per annum, from that date until the said call is actually paid:—

The Birmingham Banking Company } Birmingham.
Messrs. Attwoods, Spooner, and Co. }

Or at their London Agents:

Messrs. Jones Loyd and Co., for the Birmingham Banking Company.
Messrs. Spooner, Attwood, and Co., for Messrs. Attwoods and Co.; and at
Messrs. Moss and Co., Liverpool, for the Birmingham Banking Company.

A circular will be sent to each shareholder, which must be deposited at the bankers when the call is paid. By order of the board of directors,

JOHN WM. KIRSHAW, Secretary.

34, Bennett's-hill, Birmingham, June 12, 1847.

CALEDONIAN RAILWAY.—Notice is hereby given, that an

EXTRAORDINARY GENERAL MEETING of the shareholders of the CALEDONIAN RAILWAY COMPANY will be HELD within the Royal Hotel, Edinburgh, on Wednesday, the 28th day of July current, at Two o'clock in the afternoon, for the following purposes:— 62

1. To receive a report from the directors as to the present state of the works; the arrangements which have been made for the opening of part of the line, and the result of the proceedings in Parliament during the present session.

2. To fix, under the provisions of the companies clauses Consolidation (Scotland) Act, 1845, the remuneration of the secretary and general manager of the company, and the terms and conditions of his appointment. By order of the board,

J. J. HOPE JOHNSTONE, Chairman.

Caledonian Railway Office, 122, Princes-street, Edinburgh, July 10, 1847.

MANCHESTER, SHEFFIELD, AND LINCOLNSHIRE RAILWAY—GREAT GRIMSBY AND SHEFFIELD JUNCTION RAILWAY.

TO CONTRACTORS. 63

The directors are prepared to LET the ERECTION and COMPLETION of the various STATIONS on the portion of LINE extending from GREAT GRIMSBY to NEW HOLLAND, and to LINCOLN.

Further information may be obtained at Mr. Fowler's Offices, in London, at No. 13, Abingdon-street; or in Sheffield, at St. James-street, where plans and specifications may be seen, on and after the 21st inst.; and the directors will meet at Great Grimsby, at Twelve o'clock, on Wednesday, the 28th, to RECEIVE the TENDERS, and let the works.

The directors do not bind themselves to accept the lowest tender.

13, Abingdon-street, Westminster, July 9, 1847. YARBOROUGH, Chairman.

MANCHESTER, SHEFFIELD, AND LINCOLNSHIRE RAILWAY—NEW HOLLAND AND HULL FERRY.

TO STEAM-BOAT COMPANIES AND OTHERS. 64

The directors are prepared to LET the WORKING of the FERRY between NEW HOLLAND and HULL.

Further information may be obtained, and specifications seen at Mr. Fowler's Offices, 13, Abingdon-street, Westminster, on and after Monday, the 19th inst.

The directors will meet at Great Grimsby, at Twelve o'clock on Wednesday, the 28th, to RECEIVE the TENDERS.

The directors do not bind themselves to accept the lowest tender.

13, Abingdon-street, Westminster, July 9, 1847. YARBOROUGH, Chairman.

RAILWAY TELEGRAPHS.—Any RAILWAY COMPANY

having COMMENCED LAYING the WIRES for the USE of the ELECTRIC TELEGRAPH upon their lines, would do well, before they adopt any *particular instrument*, to WAIT till the 12th of August, when the merits of our PATENT TELEGRAPH will be fully exemplified; and we shall then be prepared to GRANT LICENSES for its use, with power to apply it in every possible way, without control or restriction. 65

BRETT & LITTLE, Furnival's Inn, London.

IMPORTANT TO RAILWAY AND STEAM NAVIGATION COMPANIES, MANUFACTURERS, AND ENGINEERS.

W. BROTHERTON AND CO.'S

PATENT LUBRICATING FLUID (or Animal Oil) FOR ALL DESCRIPTIONS OF MACHINERY. 66

W. B. & CO. have the pleasure to state, that the above article is extensively used in her Majesty's Steam Navy, and by several of the principal Steam Navigation and Railway Companies, and is pronounced by them, and by the first practical engineers of the day, to be far better adapted for the purposes of lubrication than any other article hitherto used for such purposes. The Patent Lubricating Fluid is equally applicable for the most intricate and fine pieces of machinery, as for the heaviest bearings of the steam-engine. It is cheaper, much more economical, and cleaner than oils at present in use; is free from smell, and calculated to effect a vast saving in the expenditure of working steam powers.

Further particulars can be had, and testimonials seen, by application to the manufacturers, W. BROTHERTON & CO., Hungerford Wharf, Strand, London.

N.B.—The above article will burn in lamps, and give a light equal to the best sperm oil.

IMPORTANT TO ENGINEERS, MANUFACTURERS, RAILWAY AND STEAM-BOAT COMPANIES.

Messrs. W. & C. MATHER beg to call the attention of the ABOVE PARTIES to their IMPROVED PATENT ELASTIC METALLIC PISTONS. 67

The PRINCIPAL FEATURE and ADVANTAGE of THIS IMPROVEMENT is

1. Its great ELASTICITY and SELF-ADJUSTING PROPERTIES, which enable it to yield to any inaccuracy of the cylinder, whether oval or taper, and to move with the least possible friction.

2. Its extreme SIMPLICITY and LIGHTNESS, consisting of only two pieces of metal, having the vertical and lateral pressure in due and proper proportion, independent of each other.

3. It takes the LEAST possible SPACE, and is well adapted for air and water-pumps, as it allows of a larger water way.

Messrs. W. & C. MATHER feel confident that it is the BEST ELASTIC METALLIC PACKING yet known, for the above reasons.

Models may be seen at the Salford Iron-Works, Manchester; at W. Barker's, engineer, Newton-Moor; and also at J. Mather's, engineer, Beaufort-street, Chelsea, London.

FLEXIBLE HOSE-PIPES FOR LOCOMOTIVE ENGINES,

RAILWAY CRANES, FIRE-ENGINES, GAS, &c.

PATENT VULCANISED INDIA-RUBBER HOSE-PIPES AND TUBING OF EVERY DESCRIPTION. 68

These pipes are made to stand hot-water without injury—are very superior to leather pipes, or the common India-rubber pipes; and, as they do not become hard or stiff in the lowest temperatures, or require any application when out of use, are particularly well adapted for fire-engines.

FLEXIBLE TUBING, of every description, for gas, chemical purposes, &c.

VULCANISED INDIA-RUBBER WASHERS, all sizes, for steam and hot-water joints, &c.—Sole manufacturer, JAMES LYNE HANCOCK,

Goswell Mews, Goswell-road, London.

TO ENGINEERS, RAILWAY CONTRACTORS, MINING

AGENTS, IRONMASTERS, AND OTHERS REQUIRING FINE GREASE for MACHINERY and AXLES of every description.—JOSEPH PERCIVAL'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preparation of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials shown of its great excellence.—Samples forwarded on application at the manufactory, Green-street, Wellington-street, Blackfriars-road, London. 69

IMPORTANT TO RAILWAY COMPANIES.

PATENT KAMPTULICON COMPANY, 18, CORNHILL.

This company having completed their new factory, are prepared to supply railway managers and contractors with an elastic material (perfectly non-absorbent) to place between the rails and sleepers, and between the frames and bodies of carriages, to prevent jarring, and, consequently, wear and tear. The elastic planking is strongly recommended to be used for the backs and sides of carriages, to prevent splinters when accidents occur. By order of the board. P. G. GREVILLE, Secretary. 70

PATENT GALVANISED IRON AND WIRE ROPE WORKS,

MILLWALL, POPLAR.

ANDREW SMITH begs to inform the Mining, Railway, and Shipping interests, that he has obtained a PATENT for an IMPROVED METHOD of GALVANISING IRON, producing a much superior article at a considerable saving in cost—the improved process for galvanising wire rope, adding only £10 per ton instead of £20, under the ordinary process. The rope is extensively used in damp situations, for mining and railway purposes, and for ships' standing rigging. 71

WHEAL CONCORD MINING COMPANY.—At a Special

General Meeting of the adventurers, or shareholders, of the Wheal Concord Mining Company, held at the Account-house, on the mine, situate in the parish of South-Sydenham, in the county of Devon, the 5th day of July, 1847, for the purpose of taking into consideration the propriety of selling the present adventurers' interest in the mine and materials—for adopting some measures for discharging their present liabilities—and on general and important business. The circular convening the meeting was read, under date 24th June, 1847. 72

Resolved,—That Mr. Thomas Palmer be chairman.

Resolved,—That the purser be authorised and instructed to advertise for sale, by public auction, within one month from this date, the Engine, Mine, and Materials, as they now stand on the mine; and in case that no purchaser be found at a price to be agreed on (in one lot), to sell the materials by public auction, in convenient lots, within three weeks after that sale, to the best bidder.

Resolved,—That all moneys arising from the sale of the mine and materials be paid into the hands of Messrs. Gill and Rundle, bankers, Tavistock, for the purpose of liquidating their claims on the mine, in the first instance; and the balance, after such liquidation, that may remain in their hands, shall be paid over to the bankers of the company, for the purpose of discharging the remaining liabilities now due from the mine.

Resolved,—That the purser be instructed to apply to Mr. Crofts for the lease of the mine now in his custody, and that he deliver the same to Mr. P. Little, of Devonport, on behalf of the adventurers, in order to facilitate the sale of the mine, in accordance with the next resolution.

Resolved,—That Messrs. Gill and Rundle being large creditors of the mine, and Mr. Gill having attended the meeting, accompanied by their solicitor, Mr. P. Eittle, of Devonport, it was deemed advisable that Messrs. Little and Woolcombe should be requested to assist the purser in drawing up the particulars of sale, and in the legal disposal of the mine.

Resolved,—That Messrs. Tabb and Opie be requested to make an inventory and valuation of the mine and materials, and to forward one copy thereof to the purser, and another to the committee; and this meeting do hereby authorise and empower Messrs. Little and Woolcombe, of Devonport, and the purser, to dispose of the mine and materials, in one or more lots, at such fair and reasonable sum as they may think proper.

Resolved,—That this meeting do hereby indemnify Mr. Walter Weekes, of Hurlditch, from all the costs and damages he may have been put to, in consequence of the men having proceeded against him for wages, due from the adventurers to them, in the Tavistock County Court; and that he be paid the amount out of the residue of the proceeds of the sale, as far as they may extend, before handed over by Messrs. Gill and Rundle to the bankers of the company. And in case any more summonses are issued against that gentleman, that the purser be instructed to defend him against any further demands, on the understanding, that Mr. Walter Weekes, jun., being present, will not interfere with the sale of the mine, or do any act to prejudice the validity of the lease, for one month from this date. (Signed) THOMAS PALMER.

A vote of thanks was given to the Chairman, for his able conduct in the chair.

G. W. SNELL, Purser.

WHEAL PORTLEDGE COPPER AND SILVER-LEAD MINE COMPANY,

ON THE COST-BOOK SYSTEM.

In 4000 shares. 73

BANKERS—Messrs. Harding, Braginton, and Co., Bideford.

SECRETARY—Mr. John How, jun., Bideford.

This MINE is situated on the sea-coast, in the parish of ALWINGTON, about 4 miles west of the town of BIDEFORD, in the county of Devon, and from the rich specimens of minerals already produced, bids fair to be a most profitable undertaking. The set extends over 500 acres of land, the property of one gentleman, from whom a lease of 22 years, from the 19th of April, 1847, has been obtained, at a royalty or dues of 1-15th of the produce.

Advantages present themselves for working this mine, which rarely occur, not only as respects the appearance of the lodes, but also from the facility afforded for working it at a considerable depth without the aid of expensive machinery, as well as its being in the immediate vicinity of an excellent place for shipment.

The cliffs rising from the sea-coast (and in which the minerals are found), are sufficiently high to admit of driving an adit level on the course of the lode, about 50 fathoms below the surface of the land, thereby rendering the expense of steam or other power to clear the water from the mine to that depth unnecessary.

Samples of copper ore taken from the mine have been assayed by two different public assayers, who have given the same result of produce—namely, 14½ per cent. Specimens of silver-lead ore have also been raised, the value of which is not yet ascertained.

In the formation of the present company the lessee proposes to admit coadventurers with himself on fair and equitable terms in all the advantages which the mine offers; he, therefore, proposes to divide the mine into 4000 shares, reserving 1000 to himself, upon which he will pay equally with the other adventurers.

£1 1s. per share will be required to be paid on the transfer of the shares; £1 per share to go to the lessee, and 1s. per share to be applied to the working of the mine. Future calls, if required, to be made at 1s. per share, at intervals of not less than three months; but from the great advantages afforded for working the mine, and the rich specimens of ore already raised, as well as the general formation and appearance of the lodes and strata, it is confidently believed that not more than the first deposit of 1s. per share will be required to be expended in working the mine, before sufficient ore will be raised to pay the cost, and leave a dividend for the shareholders.

A committee of management will be chosen out of the shareholders at the first general meeting. No shareholder will be liable for any amount above the number of shares he holds. Applications for shares, or other particulars, to be made to the secretary.

ELBOROUGH SILVER-LEAD, CALAMINE, AND BARYTES MINE.—PROSPECTUS.

This MINE is situated in the parish of HUTTON, Somerset, within four miles of Weston-Super-Mare, and Uphill Quarry, and 2½ miles of the Banwell station, on the Great Western Railway, is divided into 256 shares, and managed on the Cost-book System. The sett, which comprises 800 fathoms in length and 400 fathoms in width, contains a great number of lodes, which have proved very productive as far as they have been wrought.

It is well-known that for centuries past large quantities of lead ores have been raised by the system of gruffing, a rude sort of mining of the district, and parties so working, obtained large profits, although paying at the rate of 1-6th and even 1-4th to the lord, as dues or royalty. But, although this sett has been a very productive one, even by the rude operations of the gruffers on the backs of the lodes, and within a few fathoms of the surface, yet for want of more mining experience nothing has been done effectually in proving the lodes; traces of the gruffer's operations are visible for several hundred fathoms in length, and the rubbish, or waste deposits therefrom, on the surface, sufficiently indicate that large returns may be expected, if these mines are properly worked.

The report of the neighbourhood induced the present company in May last (1846) to solicit a grant of the sett; and having obtained it at moderate dues, they commenced clearing up the old workings in several places; and having fully satisfied themselves of the value of the sett, they have commenced sinking two new shafts, in order to get under the old workings, and to effectually work the mine—one of these shafts is on a perpendicular lode, having six other lodes underlaying towards it, and which, if they continue their present underlay, will all be intersected within the depth of 60 fathoms from surface.

The other is on a lode from which several tons of lead have been raised by the present company, from the old workings, which on this lode have been prosecuted to the depth of 20 fathoms, leaving a course of lead now in the bottom—but having been wrought in such a zig-zag manner, they are unfit for the purpose of mining advantageously; this shaft is, therefore, being sunk east of these workings in whole ground.

It is the general opinion of miners acquainted with the locality, that this mine can be prosecuted to the depth of 100 fathoms, without the aid of a single pumping-engine; and this, with other advantages connected with the concern, justify the proprietors in stating, that in their opinion the outlay of a comparatively small capital will bring the mine into a profitable state of working.

REPORTS.

TO MR. R. VIVIAN, TUCKINGMILL, CAMBORNE, CORNWALL. 74

SIR,—I have been a resident in this part for the last eight years, and have traversed this mineral country from the Bristol river to Wells, which is about 30 miles north and south, and from Bath to Bridgewater river, which is about 40 miles, east and west, and have, in so doing, examined very carefully the geological and mineralogical position of those localities, and find they are composed of mineral or mountain limestone, old red sandstone, new red sandstone, lias, penant, magnesian limestone, and conglomerated limestone, quartz, fluor-spar, silex, and jasper; there are hundreds of lodes and veins in this range, which carry metallic and mineral ores, such as lead, iron, copper, manganese, calamine, barytes, pyrites, reddle, antimony, coal, yellow ochre, and white lead ores.

Having heard that there were some of my countrymen at Elborough, near Banwell, working a mine, I went to see them on Tuesday, and found Capt. Trevithick and his pare dressing lead and calamine; Capt. Trevithick asked me to walk around the mine with him; I went underground at Vivian's shaft, and saw Vivian's lode, 17 fathoms deep, nearly perpendicular—a very kindly lode, 2½ ft. big, composed of flookan, elvan, and lead—good saving work. At Chapman's shaft a strong lode, and very kindly north lode: there are several lodes south of Vivian's lode, and underlaying north, which I think are likely to drop in and improve this lode in depth. I think this altogether a very promising mine. It is in the mountain limestone that this mine is, and it is in the mountain limestone that the principal British lead mines are situated, and they are those of Somersetshire, Derbyshire, Yorkshire, Cumberland, Shropshire, Flintshire, and Denbighshire—these are the most productive for lead and calamine.

The lead mines in Cornwall and Devon are in primitive rock, so that the Cornish and Devon miners in general know but little about limestone formation.

I think Somerset will make a great mining district, some day. I have an account of a little mine that paid in 1812, £808 15s. 10d. for dues; and take the average, they were no more than 15 fathoms deep, and they rose hundreds of pounds' worth, 8 or 10 fathoms deep; this mine is four miles east of Elborough Mine. THOMAS ROBARTS.

Oatland's Cottage, Wrington, near Bristol, Somerset, May 6.

SIR,—In compliance with your wish, I hereunder hand you a few remarks on the present appearances and future prospects of Elborough Mine.

This mine is situated on Elborough-hill, in the parish of Hutton, and about three miles distance from Banwell station (Great Western Railway); the set extends nearly a mile on the course of the lodes (eight or nine in number), nearly the whole of which have been worked on the backs, by the old men, and from the appearance of the work done, great quantities of lead have been raised.

I find your operations are at present confined to sinking a shaft on the course of Vivian's lode, which appears to be the principal one, and most regular in its course, nearly perpendicular—its longitudinal direction is about 10° south of east; this shaft is sunk 18½ fathoms from surface, at which point the lode is 2 feet wide, composed principally of light-coloured flookan, spar, and calamine, impregnated with lead throughout—a very kindly lode, indeed; I would strongly recommend you to get down this shaft with all possible speed, bearing in mind there are four or five lodes to the south of this, dipping towards the lode you are now sinking on; should they retain their regular course and underlay, you will have the junction of these lodes in the shaft, within the depth of 60 fathoms; when down about 16 fathoms from surface with this shaft, they cut into a large cavern, which has been made into a good whim-plat—here an end was begun, driving east of shaft, where the lode is at present small—composed of flookan, spar, and lead. I would also recommend you to place four men in this end, as it is my opinion that the whole of the lodes in this part approximate, and form a junction between 20 and 30 fathoms further east than you now are—this being done, you will fairly prove this part of the mine; from the favourable state of the ground, a great quantity can be developed in a short time; should it continue as it now is, the cost for driving or sinking will not exceed 60s. per fathom.

On Chapman's works the lode has been laid open about six fathoms deep, where it is 3 feet wide, composed of barytes, calamine, and beautiful spar, intermixed with lead—a very promising lode.

Further north still, about 60 fathoms, there is a parallel lode with the one last mentioned; this lode has been wrought on 14 fathoms deep, where it is 2 feet wide—composed of barytes and a little lead; Capt. Trevithick informs me the returns from this place have been equal to the outlay; these works are for the present suspended.

Before I conclude, I beg to observe, that it is my opinion, from the congenial strata in which the lodes are imbedded, and the promising appearance of the lodes at this shallow depth, that you will at no distant period have a profitable concern. F. C. HARPUR.

Mendip Hills Mines, May 6, 1847.

[A report from the mine, dated 18th inst., is inserted among our Mining Correspondence.]

STRONG MIXING PIG-IRON.—The YSTALYFERA

IRON COMPANY beg to solicit ORDERS for their ANTHRACITE PIG-IRON. This iron mixes well with Scotch pig—imparting to it strength and elasticity, and receiving from it a portion of its softness and fluidity. No. 3 Pig is recommended for mixing with soft iron—Nos. 1 and 2, for machinery castings, requiring great soundness and strength. At this period, when cast-iron is so much employed in the construction of bridges and other buildings, requiring all the strength and elasticity which the best mixture of metal will afford, it may be interesting to call attention to the characteristics of ANTHRACITE PIG-IRON, as REPORTED on by that great practical authority, the late DAVID MUSHET, Esq., M.I.C.E.:— 75

"It greatly exceeds, in *strength*, in *defective* powers, and capacity to resist *impact*, any iron at this time manufactured in the United Kingdom."

"It now only remains for me to mention a property peculiar to this iron, which was noticed at the time I made the trial experiments, four years ago, but which has been more fully developed in those more recently made. The property referred to is one of *great springiness*, or *elasticity*, which communicates a tendency to the bar, in deflecting and breaking, to resume its rectangular form. Bars that had obtained a permanent set of 2-10ths, when afterwards broken, presented but a slight deviation from a right line; and, in no case, did the curvature exceed one-fourth of a tenth."

"It was also remarked, that most of the fractures, in breaking, presented a *regularity of grain* throughout, resembling the structure of *unhardened steel*."

Address THE YSTALYFERA IRON COMPANY,

Dated June 22, 1847. *Near NEATH, SOUTH WALES.*

HOT-BLAST WITHOUT COAL, LABOUR, OR REPAIRS.

DIXON AND BUDD'S PATENTS. 76

Apply for particulars, or to inspect the process in operation on six blast-furnaces, to J. Palmer Budd, Esq., Ystalyfera Iron-Works, near Neath.

Dated June 22, 1847.

ASSAYING AND ANALYSIS.—Mr. MITCHELL begs to

inform the MANAGERS, &c., of MINES, SMELTING-WORKS, and MANUFACTORIES, that he still continues to CONDUCT ASSAYS and ANALYSES of all PRODUCTS, metallurgical and manufacturing, at his LABORATORY, 77

23, *HAWLEY-ROAD, KENTISH TOWN, LONDON,*

to which address communications are to be forwarded.—Instruction in all branches of assaying and analysis as usual.

ADCOCK'S PATENT SPRAY PUMP.—This important

INVENTION having been PERFECTED, and brought into SUCCESSFUL PRACTICAL OPERATION at LLANHIDDEL, at pits belonging to R. J. Blewitt, Esq., M.P., Llantarnam Abbey, near Newport, Monmouthshire, the PATENTEE is ready to RECEIVE, and to execute, ORDERS.—Apply to Henry Adcock, C.E., at his offices, 137, Strand, London, where pamphlets, descriptive of the invention, may be had; at the office of the *Mining Journal*, 26, Fleet-street; and through any respectable bookseller—price 2s. 78

VENTILATION OF COAL MINES.

BIRAM'S ANEMOMETER, FOR ASCERTAINING THE

VENTILATION OF COAL MINES.—This INSTRUMENT is now EMPLOYED by many EMINENT ENGINEERS, to whom reference can be given.

For particulars apply to the patentee, B. Biram, Esq., Wentworth, near Rotherham; or to the maker, John Davis, Derby, manufacturer of Miner's Dials, Pit Barometers, and Safety Lamps. 79

BRUNTON'S PATENT ORE-DRESSING FRAME.—

These FRAMES, for DRESSING TIN, COPPER, and OTHER MINERALS, having been in use, and given satisfaction, on several mines, during the last two years, the PATENTEE begs to call the attention of all Adventurers and Mine Agents to the great advantages, both as regards economy of labour and the great increase of mineral obtained by their adoption. The following gentlemen can certify as to their utility:—Thos. Bolitho and Sons; P. N. Johnson, Esq.; Capt. Jos. Vivian, Cook's Kitchen Mine; Capt. R. Kernick, St. Ives Consols; Capt. R. Edwards, Wheal Franco; Capt. W. Teague, Wheal Grys; Capt. James Miners, and Capt. Matthew Rogers, Carn Brea Mines. 80

SCOTTISH CENTRAL RAILWAY.

TO THE SHAREHOLDERS OF THE SCOTTISH CENTRAL RAILWAY COMPANY.

GENTLEMEN,—An important circular has this day reached me from the Secretary of the Scottish Central Railway Company, and by same post letter from Mr. W. A. ANDERSON, both apparently from the same Press (not the *Minerva*). Before I touch on the Circular from the Scottish Central, allow me to say a word to Mr. TOD.

Mr. TOD I fear has taken offence because I did not mistake him for his namesake "*the terrible*," and hence his attempt to *blow up Powder Hall*, or (as he facetiously calls it), Gunpowder Hall. The Man of Manchester, however, keeps out of the field his own *Hall, Gun-Cotton* Hall—viz.: as there might have been danger of explosion from the proximity of two such inflammable bodies. If Mr. TOD belongs to the *Scotch* TODS, he must forgive me for thinking that he is not the *vulpes astutus* of *Æsop*, and for maintaining my opinion that he is not "*the terrible man* JOHN TOD!" *Gunpowder* and *Gun-Cotton* having now exchanged broadsides, and taken a good-humoured *puff* at each other, I think the best thing they can do is—if my friend (?) is not an Edinburgh and Glasgow man—to join forces, and endeavour to *blow up* the conspiracy which has been formed against the best interests of the Scottish Central.

Mr. TOD I learn is a gentleman of character and respectability; and I am, therefore, sorry to see him mix himself up with the defence of others, and (if I am wrong, I beg his pardon) lend the sanction of his name to their statements—allowing them to fight their battles under his colours, when they are ashamed to display their own. The letter makes him "*suppose*" that my publication is the "manifesto" of the Caledonian board. Now, I can assure Mr. TOD that the Caledonian board has no connection with, and is in no way responsible for, any of my letters; I wrote them, as I do this, without the knowledge of, and without communication with, any member of the Caledonian or Scottish Central boards, and am alone responsible for all statements I make.

Mr. TOD will see that he is mistaken, when he charges me with an error in the date of my letter. It bears that of 29th June—but the *postcript*, which alludes to *his* letter, is dated *Friday*, the day in which it appeared in the *Times*.

To come now to the circular of the Scottish Central. The opinion of counsel appears to be, that the agreement with the Caledonian Company, without the sanction of Parliament, is not binding on the shareholders; and that they are, therefore, at liberty to repudiate it. Whatever my own opinion may have been, it would be presumption now for me to maintain it against such authority. I must, therefore, take the case on the supposition that the opinion is a sound one. And what is the result? Exactly what I predicted—that the company will be left without any guarantee at all, unless you support the directors on the 20th current.

The honour and good faith of the Caledonian Company have never yet been sullied by the repudiation, or nonfulfilment, of any obligation they have come under.

How stands the case with the Edinburgh and Glasgow? Why, the name of their repudiations is *legion*. I do not pretend to remember them all; but I dare say they will think my memory sufficiently retentive when it enables me to enumerate the following:—

MR. CHEETHAM, and some of his colleagues in the present direction of the Edinburgh and Glasgow Board, petitioned against (thereby repudiating) the amalgamation of that company with the Scottish Central. If, then, they repudiated that amalgamation at 5½ as a *bad one*, can it be supposed that they would not repudiate one of *nine per cent*?

The Edinburgh and Glasgow also repudiated their amalgamation with—

The Forth and Clyde Canal Company;
The Edinburgh and Glasgow Union Canal Company;
The Wishaw and Coltness Railway;
The Ballochney Railway;
The Monkland and Kirkintilloch Railway;
The Slamannan Railway; and
Their engagement with their manager, Mr. GRAESON, for implement of which they are now in Court with him. 81

With such a catalogue before you, I think you should at least pause before you listen to proposals coming from such a quarter.

The Edinburgh and Glasgow board I would pronounce to be unfit guardians of the interests of their shareholders, if they made you an offer of 9 per cent., with the expectation that it would be carried out; for it can never be alleged by any one, who knows at all the localities and resources of the lines, that the return from the Scottish Central will come near to that of the Edinburgh and Glasgow, or that the sum for which they propose to bind their company beyond the present guarantee would ever be made up by their obtaining all that they expect from obtaining possession of the Central—viz.: the *whole trade* to Glasgow from the north, instead of the *one-half*, which the Caledonians offers them. Nor can it possibly be supposed that any company leasing the Central would be able by any management to monopolise the whole of that traffic, whilst there are two lines to the same place; the attempt would infallibly lead to competition, by the Caledonian Company running against them for lower rates; the effects of which they had bitter experience of when they competed with the canals.

If they could not get a purchaser for their line at 9 per cent. some time ago, they will certainly have a worse chance of obtaining one when saddled with such a guarantee as they propose to give the Central. That they offered to sell their line to the Caledonians for 9 per cent., is a fact to which I am pledged; but on what data did the Edinburgh and Glasgow board proceed when they valued their line at that figure? It was on the assumption (*by them*) that their weekly revenue would average 5000*l.*, as soon as they completed their access to the Princes-street station; and upon the principle that their line was worth more to the Caledonian Company than to another, because they said and maintained it would prove a saving to that company of *two millions sterling!!* The optics of the Caledonian Company had not such high magnifying powers as to enable them to see their way to that, or the 5000*l. per week*, and, therefore, the negotiation broke off.

The Edinburgh and Glasgow have now, for some time, had their connection with the Princes-street station, and yet their weekly traffic seems to stick at a figure nearer £3000 than £4000. What may it be calculated at when the rival line of the Caledonian comes into operation a few months hence?

I write under pressure, and may be wrong, but I think that in round numbers, and reckoning only 33 per cent. for working expenses on a capital of two millions one hundred thousand (the capital on which they required the Caledonian to pay), they would require £5000 per week to pay a dividend of 8½, and somewhere about £3600 to pay 6 *per cent.* How, then, the yare to maintain their present dividend on that capital, I do not discover from their traffic returns; and, of course, their means will be very much less when they come to compete with the Caledonian line.

Under these circumstances, I think an amalgamation *at par with the Edinburgh and Glasgow*, unquestionably a much worse bargain than the existing one with the Caledonian—viz., 7 per cent. *as a minimum*, with one-half of the surplus profit, and the security of the southern companies—taking into view also that Parliament have already decided against a connection with the Edinburgh and Glasgow—that the Parliamentary Report upon Amalgamations is quite against any hope of their succeeding now, with a certainty of the determined hostility and opposition of the three companies, whose guarantee you at present hold suits at law for non-implement of agreement, interdicts of court, &c. &c.

With these remarks on the position which you will choose for yourselves on the 20th current, I remain, Gentlemen, your obedient servant, WM. MACDONALD.

London, July 13, 1847.

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*** It will at all times save much delay and inconvenience, if communications are directed simply

To THE EDITOR,
Mining Journal Office,
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And POST-OFFICE ORDERS, &c., must be made payable to WILLIAM SALMON MARSH, as acting for the proprietors.